DEVOTED TO AGRICULTURE AND ITS KINDRED ARTS AND SCIENCES.

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CALENDAR FOR APRIL.

"Spring, the year's youth, fair mother of new flowers,
New leaves, new loves, drawn by the winged hours,
Thou art returned."

April, says the author of the *Mirror of the Months*, is spring—the only spring month we possess—the most juvenile of the months, and the most feminine—the sweetest month of all the year; partly because it ushers in May, and partly for its own sake, so far as anything can be valuable without reference to anything else. It is worth two Mays, because it tells tales of May in every sigh that it breathes, and every tear that it lets fall. It is the harbinger, the herald, the promise, the prophecy, the foretaste of all the beauties that are to follow it—of all, and more—of all the delights of summer, and all the "pride, pomp, and circumstance of glorious autumn." It is fraught with beauties that no other month can bring before us, and

"It bears a glass which shows us many more."

Ah, April! April! this might have been thy character *once*, or in other climes, but we should scarcely recognize the portrait here. True, it has its flush of new green on the meadow, its crocuses, hyacinths, daffodils, and other gems of beauty; it gives us the first voice of the gentle birds, and a thousand awakenings of new life about us, but, ah, has it not its fierce winds, chilling frosts, snows and pelting storms from the eastern sky? Treacherous April! Did it not send its heralds *last* year, the robin and the bluebird, and sweet gales from the south, and ere their voice and their fragrance had died away, the fierce North resumed her sway and poured her stores of icy winds and chilling snows into her lap. Where were the birds and the southern airs on the 7th of April, one revolution of the earth ago, when the roads were blocked with drifts, and the stone walls were ought of sight!

But then we *are* thankful for April, fickle as it is, and couldn't well do without it, as it affords opportunity to make so many preparations for the busy seed-time.

Plans.—All the general plans of the farmer must be laid out now, if it has been neglected until this time. Do not enter the field by-and-by, and wonder what crop you shall apply to this part or that, and hesitate whether you shall break up an acre or two on the hill or take another piece on the meadow. No, no, this is perplexing when the day is waning, and men and teams are waiting.

So of the garden; take the plan in your hands when you carry out your seeds. Here is the spot for the beds, their length and width all laid down; the new pear trees are to occupy that vacant and sheltered spot in the south corner; the raspberries and strawberries, the tomatoes, cucumbers and melons, the beans, peas and cabbages the early potatoes, corn, radishes and lettuce, all have their particular place assigned, and the mind is not distracted with the feeling that all must be done promptly, and yet it has not decided how to direct the operations.

Make as much garden as you can,—it is the most profitable part of the farm. There is often more profit on a quarter of an acre in garden than from 2 or 3 acres of the farm. Get in early peas and potatoes. On the sunny side of a wall, sprung up to briars and young bushes, clear up and put in seed for early potatoes; it is just such a spot as they like; the new earth so light and warm. You may have them by the 4th of July in perfection.

Pruning.—The Messrs. Allen, in the *American Agriculturist* for 1842, page 65, say they think pruning should be done "after that period when the excessive flow of thin and watery sap has subsided, and the leaves have fully matured, which happens in this latitude, from the 20th of June to the 15th of July." It is worth while to try this mode and see how it works. At any rate, cut off no large limbs in April.

Peach Trees.—By cutting about one-half of the

last year's growth of the limbs you will prevent them from stretching off into long and slender forms; and breaking down whenever they bear.—It has the effect, also, of thinning the fruit, because it takes away a considerable portion of the blossom buds.

Mowing Fields.—See that the drains are all free, and gather up branches from the apple trees or brush left on meadows which have been overflowed, so that they may not be in the way in haying time.

Transplanting.—Nothing is easier if you know how—and really, it is a very simple matter to do it, and do it well.

If the true is two years from the bud, a hole six feet in diameter is not too large; 18 inches deep will answer, throwing back the top earth into the bottom of the hole. Take the trees up with the utmost care, and break as few of the little spongelets as possible. How could a child suck an orange with jaws broken, and lacerated lips! In the centre of the six-foot hole raise a little conical hill and place the tree gently upon it; the roots will then fall into a somewhat natural position. Now with the fingers place them all straight, and sift in the fine, rich mould, that the delicate fibres may nestle among it.

There! you have treated that tree with proper consideration, and it will bow to you ere long, filled with luscious fruit.

Plowing.— Plow not while the soil is wet and mixes into mortar. It will bake in lumps and remain so through the summer unless by dint of hard knocks they are broken up. Even though the season be late, it is doubtful whether any thing is gained by plowing before the ground is sufficiently dry to have it drop partially to pieces on its being turned over.

But plow deep—take hold a little lower than you did last year; an inch of yellow subsoil will soon become more than an inch of black upper soil. Remember the proverb about having "corn to sell and keep."

Grafting, fencing, the nursery, clearing up the garden, the door-yard, the wood-pile, and numerous other things, will require attention now. Let us lay hold of the work before us with cheerful and hopeful hearts, and pursue it with a well-tempered zeal; the seeds shall spring upward from the sod, and He who giveth the increase shall gladden our hearts with abundant Harvest.

A New Mixture.—Those who cannot economically procure a supply of guano for their crops, will find an excellent substitute in the following. The quantity is for one acre, and will be found sufficient to ensure a good crop:—

Take two bushels of bone-dust, 4 bushels of ashes, 25 lbs. nitrate of potash, *saltpetre* 25 lbs., nitrate of soda, (*soda-saltpetre*) and 50 lbs. of common salt.

Mix the whole well together, sow broadcast, harrow in, and roll.

By many trials made with this mixture, it has been proved to be an excellent article, especially on corn or wheat.

For the New England Farmer.

MONTHLY FARMER FOR MARCH.

Mr. Brown:—I offer the following brief review of the March number for publication, by way of experiment. If my remarks on the various articles shall induce a more careful reading of the *Farmer*, one chief design will be accomplished; for I apprehend careless reading is becoming one of the vices of the time.

"*Calendar for March.*"—Pleasant remarks on this month of "many weathers," with suggestions upon several topics of thought and action appropriate to the month. Books and study recommended. Now, that the prospect for the immediate establishment of agricultural schools has become rather dubious, let us resolve, like Esop's Reapers, to take hold of the work ourselves.

"*Peculiar Difficulties of New England Husbandry.*"—From want of the 60,000 acre estates of England, our schemes of improvement must be more humble than theirs. There, one farmer directs 6000 pair of hands; here, often, two pair only. A difference too often overlooked in our "books." Our soil, too, is poor; but our competitors, South and West, are fast reducing their to an equality with ours.

"*Black Knots on Plum Trees.*"—Experiments which show the cause of the trouble to be a small moth. The writer alludes to "remarks on ants and aphides," which we hope to see before our trees are again infested by them. Necessity will soon bring us to the study of Entomology. If ladies will take hold of the subject, there may be hope; but at present, insects seem to have the advantage, altogether, of the men.

"*Core Worm.*"—A simple remedy proposed. Try it—it may do good.

"*Chinese Farming.*"—How much history tells of kings and fighters; how little of what we ought to know! Have looked over a large volume on China, lately published by Sears, without finding any answer to the question, how do the Chinese keep their land productive? Have always understood they *saved* everything.

"*Cultivation of Flowers*" recommended.

"*Bristol County Agricultural Society.*"—Notice of its "Transactions," with a richly deserved compliment for the address of Hon. Mr. Winthrop. Following which, are notices of several other County "Transactions," with an extract from Gov. Boutwell's address before the Hillsboro' (N. H.) Society. The Governor says "the intelligent cultivation of the land does not exhaust but enriches it." Why, then, need England import bones, guano, &c.?

"*The American Crab Apple.*"—Never was much interested in crabby apples, generally, but this cut and description of the original, is certainly very interesting.

"*Birds of New England,*" No. 2, on the winter retreat of swallows. Our birds are fast de-

creasing, and the depredations of insects as rapidly increasing. Yet things in form of men kill little birds for *pleasure!*

"*Pea Fodder.*"—Pea vines, properly cured, recommended for fodder. My father always raised peas for pig-feed; after threshing, the vines were piled in a corner of the yard. Cattle, in the winter, used to make holes into the piles, up to their eyes and chew away upon it, for fun, as we thought, —for we never asked them to eat pea vines.

"*Live Fences.*"—Nearly from the first settlement of our country, attempts have been made to grow something like the hedges of England; yet, so far as I know, the first half mile of effective "live fence" in the United States is yet to be planted.

"*Farming Interests Neglected*" in the south half of Woodstock, Vt. A gloomy picture; but too truthful, I apprehend, of the state of most old agricultural sections of New England. I will here venture a caution to the writer of this article against trying on a very large scale that "sprout-to-be-stuck-in-a-potato" experiment he speaks of. It as an old humbug.

"*Farm Labor.*"—Inquiries and suggestions in relation to labor-saving machines.

"*Dwarfing Fruit Trees.*"—How much pains folks do take to "work against natur."

"*Hardy Fruits for the North.*"—Remarks by Mr. Burt, of Walpole, N. H., on the adaptation of particular fruits to particular localities. He places the Northern Spy in his list. Mr. Burt will gratify many readers of the *Farmer*, by giving the reasons which induced him to recommend this fruit for *his section*.

"*Vandalism.*"—Indignation for the destruction of shade trees in Waltham.

"*Legislative Agricultural Meeting.*"—Report of third meeting, Feb. 1, 1853. Although there may occasionally be a rather flighty speech made at the State House, are not the *Farmer* reports of them, alone, worth the subscription price for the year!

"*To Inventors.*"—"L. R." wants a simple machine to shovel manure, muck, &c., into his cart. Second the motion!

"*Analyses of Soils.*"—The writer is afraid some people expect too much of science in general, and of analyses of soils in particular.

"*Agricultural Implements.*"—Facts about plowing by steam—common plows—wood and iron harrows—horse rakes—mowing machines, &c.

"*History of the Borer*," with directions for its prevention and destruction. One of those articles that are *studied*.

"*Experimental Farming.*"—Difficulties in the way both of theoretical and scientific farming.

"*Silesian Merino Ewes*," with a pictured group, in which I see nothing to make one feel as John Randolph did, when he said he would go half a mile to kick a sheep.

"*A Good Example.*"—No doubt that patching pantaloons and darning stockings have kept many a man's head "above water" who claimed the credit for himself and boys, that was due to his wife and daughters. Mr. WHITON's name will be remembered, for his thought and deed.

"*Good Management vs. Bad Management.*"—A Novel in the *Farmer*.

"*Cranberries.*"—Inducements and directions for cultivating this fruit.

"*Evergreen Sweet Corn.*"—A recommendation of, and directions for raising it, &c., by E. P. Walton, Montpelier, Vt., who has seed for sale, at 50 cents per quart!

"*Carrots for Horses*"—"*To Kill Lice on Cattle.*"

"*New England Farmer.*"—A glance at articles in first half of January number.

"*Thorn and Quince Stocks for Pears.*"—Reasons for preferring the quince.

"*Bloodgood and Rostiezer Pears*" recommended, with outlines of each.

"*Remedy for Choked Cattle,*" with cuts of the simple appparatus recommended.

Shorter Articles, on Raising Celery—A new Apple—Large Tree—Large Hogs—Use of Guano—How to make Hard Water Soft—A Mild Winter—Splendid Pear—At Home again—Large Steer—Lime—County Exhibitions, 1853—Clover Seed for an acre—Poetry, &c., with articles in the Ladies' and Boys' Departments, advertisements and index, conclude our bill of fare for the feast of March.

GUANO.

Of natural guano, the following is the result of an analysis made by VOECKL, and published in 1841 in the "*Bulletin Universalle de Geneve.*"

Urate of ammonia	9.0
Oxalate of ammonia	10.6
Oxalate of lime	7.0
Phosphate of ammonia	6.0
Phosphate of ammonia and magnesia	2.6
Sulphate of Potash	5.5
Sulphate of Soda	3.8
Muriate of ammonia	4.2
Phosphate of lime	14.5
Clay and sand	4.7
Undetermined and organic matters, (¼ of which is soluble in water,) and water with traces of soluble salts of iron	32 3
	100.

Of this "*undetermined organic matter*," neither Liebig nor Vanguelin make any mention. In consequence of the very decided demonstrations by the farming community in favor of this fertiliser, and the anticipated failure of the natural supply, chemists have succeeded in compounding a substance which is said, by those who have tried it on various crops, to possess nearly if not quite the same virtues as the natural guano.

For the New England Farmer.

MUSIC OF THE CORN SHELLER.

MESSRS. EDITORS.—I have usually got out my corn by shelling by hand, (*a slow process.*) Last fall, I purchased a corn sheller, and have used it thus far through the winter, and I am well pleased with it; not only on account of the dispatch of business, but for the effect of the music it creates when in operation. I have been much troubled for years past, by rats and mice in my corn house destroying the corn; and it seemed almost impossible to keep them out of the house; but since I have used the sheller, *which is placed in my corn house*, I have not discovered a rat, or the mark of one, in the house. In case it will have a similar effect in other places, I would advise all my brother farmers, who have not got a sheller, to purchase one without delay. F. KYLE.

Chester Village, 1853.

For the New England Farmer.

NEW ENGLAND HOUSEWIVES.

The following literary curiosity is from the *Southern Planter*, published at Richmond Va., and is worthy of the attention of our readers, as well for the peculiar force of its logic, as for its enlarged views of the rights of man, and the true position of woman. A few passages are put in *italics*, that they may be the more readily referred to.

NEW ENGLAND HOUSEWIVES.

Many a time have we heard the matrons of Virginia bemoan their lot. The ordinary troubles of a family are to them aggravated by what they think the hard responsibilities of their condition in the midst of slaves, whose labors in many cases they must direct, whose well being it is at all times a part of their duty to consult, and whose comfort in sickness, in infancy and in age, it is, or ought to be their special province to provide for. We have never sympathized with their repinings, because we have always thought that such labors were good for them—*that slavery had done them a decided benefit in giving them something to do;* and that something equally well calculated to employ their hands and to engage their hearts. We have always regarded it as one, and by no means the least, of *the blessings which we ascribe to slavery, and which makes us love the word*, that it compels us, by interest, if you choose, to dispense the charities of life with no niggard hand, and to contribute so much of the poor rates without municipal requirement.

We have sometimes heard these ladies compare their state with the imaginary comfort of free-soil dames, and, from mere weariness of spirit, wish themselves surrounded by the same circumstances of ease, comfort, and exemption from domestic care. We have combated this notion with them, have represented to them their superiority in the very particulars which formed the topics of their disparagement, and have exhorted them to patience and thankfulness. Of late we have been aided in these views by the two novels of a very charming writer, and have shown them how, both in QUEECHY and THE WIDE, WIDE WORLD, the authoress, having by her pictures of New England Rural Manners, shown its unfitness for the abode of the highest female refinement, has, in each case, translated her heroines to England in order that they might continue to maintain the highest graces of country life. Still our friends have been incredulous. These were but novels, they said, and the lady that wrote them, charming as she was, and no doubt sincere, filled too with the most beautiful sense of propriety, and refined to the utmost tension of female delicacy, was yet rather high strung, and may have pushed her fastidious imagination into matters of fact. But what can be said, when, (as in the following extracts from the address of Mr. FRENCH, associate editor of the *New England Farmer*, from which paper we have taken it, an address accredited to us by the regular editor as one of the three best that he had ever seen,) "the peculiar station which woman occupies in New England society" is made the subject of stringent comment in a public speech. We shall not attempt to add one touch to this picture by a native limner, familiar with the scene he paints, and endorsed for accuracy by one of the leading agricultural journals of his section. We offer this picture to the contemplation of our lady readers. It is not of our drawing. Let them ponder it—let them consider that "*a majority of the wives of respectable New England farmers, aye, and of men of all other classes,*" in the country, are expected by their husbands "*to be at the same time cook and chambermaid, lady and serving girl, nurse and sempstress and governess, laundress and dairymaid;*" and then let them ask themselves, first, if they would change places with the New England matron? and second, if *their* husbands would impose as much labor on four slaves as the men of New England require of one wife?

"The matrons of Virginia," says the writer, "bemoan their lot." They envy the ladies of the North, "and wish themselves surrounded by the same circumstances of ease, comfort, and exemption from domestic care," but he tells them they are ignorant of their true position, and he has, even, as he says, "combatted this notion with them" and "exhorted them to patience and thankfulness."

Surely, the ladies of Virginia, are entitled to a more respectful hearing, than this writer seems willing to give them. I have regarded these southern matrons as a highly educated, refined and intelligent class, over whom the natural principles of justice and humanity, and the teachings of the religion of Christ, have a controlling influence—an influence too powerful to be successfully "combatted" by the poor sophistry of the author of the foregoing article.

They justly complain of the burdens which slavery imposes on women. He has "never sympathized with their repinings," but has told them bluntly that "*such labors were good for them*—that slavery has done them a decided benefit, in giving them something to do." His argument would seem to be correctly stated, in the following syllogism. *Labor is good for them, slavery brings them this labor, therefore slavery is good for them.* A most ingenious form of argument to establish the general proposition, that their condition is superior to that of "Freesoil Dames," *because the latter are in a position to labor!*

But, perhaps, in the *peculiar kind* of labor which slavery imposes on southern ladies consists the blessing which that "peculiar institution" brings to them; the cae, for instance, of some score or two of "the images of God in ebony," "in sickness, in infancy and age," which, to use again his language, "refines to the utmost tension of female delicacy" the character of woman! No doubt the nursing and watching over those, so degraded as to be unfit to take care of each other—an office which might well engage the attention of a Sister of Charity, or of an angel from Heaven, is, for the most part, faithfully performed by Virginia matrons, in their households; and this, surely, is a mission beyond the reach of Northern ladies, except, perhaps, the matrons of our almshouses and hospitals.

But that Southern ladies should regard such a necessity, however salutary its discipline, as "a hard responsibility," and a burden peculiar to themselves, shows their just appreciation of their position.

The *Planter* invites a comparison between the position of woman at the North and South. We have enough at home to engage our attention, and need not to be reminded that our state of society is imperfect—that we have wrongs to be righted, and sins to be repented of, and unless challenged to do so, have no desire to institute comparisons between our condition and that of our Southern neighbors.

Personally, I am identified with no abolition or freesoil party, but have the feeling of every true man at the North on this subject, and if I have ever said, or thought, or done anything that may be fairly construed into a justification, excuse or apology for slavery, except as a mere temporary necessity, I humbly desire to repent of that transgression. If I have said, that the condition of woman is hard at the *North*, I have never said, for I have never thought, that it was more desirable at the *South*.

Without considering the one-half of the sex, that is bought and sold, and scourged, and every way dishonored, at the will of others, where slavery exists, a single glance at the position of a Southern lady as a *mother*, and a *teacher* of her children, will be enough to satisfy Northern women, that indeed, the heart of the Southern matron "knoweth its own bitterness."

In the address, from which the editor of the *Southern Planter* has endeavored to deduce an argument for slavery, I spoke honestly, and earnestly, to New England men, of the condition of New England society, and cautioned them against allowing their personal schemes of business, or amuse-

ment, to take such forms, as to impose upon the other sex an undue share of life's burdens and cares. We have, in this part of New England, neither hunger, nor nakedness, nor ignorance, nor slavery. We regard labor as respectable for all, both men and women, and I have yet to learn that the latter, whatever *cause* may exist, have complained that their lines have not "fallen in pleasant places;" or that they envy the condition of the ladies of the South.

Should they do so, it is hoped they may find a more courteous champion than the ladies of Virginia seem, so fruitlessly, to have selected.

HENRY F. FRENCH.

Exeter, N. H., March 14, 1853.

RYE.

According to some writers, rye was derived originally from Crete. It is, however, no doubt, a factitious grain, like wheat, and other similar productions. The tradition of the Egyptians assigned its introduction among their ancestors to the beneficence of one of their principal deities, believing that before, both wheat and rye were found only in the woods. In its nutritive properties, this grain probably comes nearer to wheat than either corn or barley. In Pennsylvania and most of the New England States, rye is extensively cultivated, and where the soil is well adapted to it the crop is generally found to be lucrative. It requires a light, porous soil, with a sandy subsoil. In Russia and the German States, rye is the principal bread corn, and in about every country on the continent, it is cultivated much more extensively than wheat. It is there contemplated not only as a much more certain crop than the latter, but as demanding far less labor and manure. In Great Britain and Wales, where this grain was formerly grown in large quantities, its cultivation has of late years almost wholly ceased, and in Ireland and Scotland it at present engrosses much less attention than formerly, and can scarcely be enumerated among the bread grains of either country. On the pine plains land of Maine and New York, it is unquestionably the most certain and lucrative crop that can be grown. Both the summer and winter kinds do well on such soil.

MILLET.

This grain, where the seed is the principal object, may be got in any time before July. We have known affluent crops from seed sown as late as the fourth of this month; but as a general rule, the sowing ought not, perhaps, to be deferred beyond the last week in June. When *hay* is the main object of the cultivator, it must be sowed earlier. May is probably the best time. Convinced as we are of the great value of millet as a field crop, we are strongly desirous of seeing it more generally introduced—and especially in those sections where there is a large proportion of light, warm, soil, and on which it can, from various circumstances, be cultivated with far more success and profit, generally speaking, than any other grain.

For the New England Farmer.

THE CHURN.

MR. EDITOR:—In looking over the Feb. No. of your valuable journal, I find an inquiry in relation to the most available churn for large dairies. As you have not definitely answered your correspondent, J. R., perhaps through motives of prudence, many salesmen having a direct interest in the final decision of this question, I respectfully submit the result of my experience in using two churns now in my possession. I have used a common crank or flat churn nine years in my dairy of forty cows. It is an upright box, the arms or floats occupying the lower portico, with a flat lid on the top. By using this churn, which has much space within, above the floats which never break all of the cream, I have lost nearly one pound of butter in every twenty produced in it during the nine years I have used it. Feeling most sensibly, the loss I was sustaining in this way, a little over a year ago I caused a barrel rotary churn to be built for my dairy. It is a small cask fourteen inches by twenty-two, turns or rotates around a stationary bar placed in the upper portion of the interior space; and is provided with an apparatus for tempering the fluid by cold or warm water when necessary, which can be passed throughout the *centre* of the barrel before and during the operation of churning. This size will produce from twenty to thirty-five pounds of butter, and is sufficient for my dairy of under sixty cows.—One hundred pounds of butter can be produced in it from thick sour cream at three churnings in less than one hour.

The *Excelsior Churn* appears to fill a place in large dairies, which the old dash churn, to say nothing of the various patent churns, many of which are great favorites in the dairy, have not occupied. A practical test has demonstrated to all persons who have witnessed its operation that it works easily, *makes no waste*, and produces the finest quality of butter. Its cheap and effective tempering apparaus enables the dairyman to apply the water of his well or fountain to the centre of the barrel, which *desideratum* could never be attained in the old dash churn. The illustration and description recently published in the *Farmer*, is designed to awaken inquiry, and to shew dairyman at a glance the result of my humble efforts to avoid or save the *waste of the churn*. Wide fields, rich feed, and the best selected cows, fail to shew an increase in the ordinary product of the dairy, where an imperfect churn is daily wasting or turning small portions of rich cream to the "*barrel*," instead of the firkin. Query—which is the most profitable, to churn new milk, or milk and cream together when sour; or cream only taken from sour milk?

GEO. B. CLARKE.

Leonardsville, Madison Co., N. Y. March, 1853.

TO PREVENT MILDEW.—Mildew is one of the greatest pests of green-houses and all sorts of plant structures. The following remedy has been tried in the houses of the London Horticultural Society, and it is thought will prove efficacious: "Sulphur and unslaked lime put into a tub of water, in

which they are quickly and intimately mixed, and the trees and plants syringed with the clear liquid after these substances have settled at the bottom.

For the New England Farmer.

RURAL PLEASURES.

There is, perhaps, no situation in life which affords greater facilities for enjoyment, than that of the husbandman. Exempt from the many cares which throng the pathway of the professional man, the farmer finds ample opportunity to cultivate his mind and expand his intellect, and even while engaged in labor, may still be a learner from the great book of Nature. As the plowshare turns the sods, his eye wanders over the rich landscape, and, in the meandering streams, the wood-crowned hills and smiling vales, he traces the finger of God. The glory of the spring-time is not by him unheeded. He sees with delight the delicate verdure, mantling in beauty the awakening earth—he views with pleasure the fair petals of innumerable blossoms as they unfold to the genial sunbeams, and he feels upon his cheek, the soft breeze which is laden with their balmy perfume. For him, the minstrels of heaven have a song of joy, and all nature seems hymning an anthem of praise. Gladly the farmer greets the spring-time, and with a light heart prepares his fields, and sows the tiny seed, which will yet yield a glorious autumn offering. No feverish excitement disturbs his placid life—no wild dreams of fame and glory—no ambitious schemes, whose bright hopes gleam for a space, then fade in darkness away. His course is before him—simple and plain—peace and contentment are the inmates of his breast. Day after day beholds him at his healthful toil, and fortune smiles upon him. His table boasts few foreign luxuries, but fair plenty is ever there, and the viands produced by his own care are partaken of with a relish which the epicure might envy. Home is to the husbandman a delightful spot. Care flees from his fireside and the evening hours are spent in calm converse or innocent glee. When night's sombre curtains, enfold the earth, he finds a sweet repose, for toil has lent "a blissful zest to slumber." How many young men who now forsake their rural homes, and seek the crowded city, would escape the snares of the tempter and shun the cup of sorrow, if they remained upon the peaceful farms of their fathers.

E. C. L.

Lebanon, Ct. also p. 259.

The American Crab Apple.—The American Crab apple is found in the Southern and Middle Atlantic States and as far North as New York: and at the west as far north as Wisconsin. When in bloom we have found the forest for a considerable distance delightfully perfumed by a single wild tree;—decidedly the finest perfume to be found among American Trees and Shrubs, so far as we know. We should prefer it decidedly, as an ornamental tree, to the common Siberian Crab: and, as it grows in about our latitude at the West, should suppose that it might be introduced here. We are prompted to this notice by seeing the fruit figured in the *New England Farmer*. Why is it not found on any of our nursery catalogues?

Anonymous.

From the New England Farmer.

SOUTHERN SPRING.

[Extract of a letter dated Columbia, S. C., March 5, 1853.]

Dear Sir: — The spring is not a forward one here; the plums, peaches and strawberries are in blossom, still the weather is cool. The planters are about planting their corn; some fields are already planted, and many others will be the coming week. The trees are beginning to put out their young leaves, and in a week or two we shall have spring in earnest. To-day we have had quite a snow storm, which lasted several hours, (the first snow this season,) but it soon disappeared.

I am glad that the good work of progress goes bravely on with you in the old Bay State. I hope that old Middlesex will not falter in her onward course, but will keep up with the times, and offer such inducements to her noble sons as to secure their best efforts for improvement in every branch of agricultural science, and in everything connected with mother earth.

Yours truly, Solon Dike.

Remarks.—We received the above on the morning of the 15th, and the night previous ice made half an inch thick in our dwelling, and the wind blew what the sailors call *half a gale*. The roads, which were all mud when the wind began, were soon "stiff as the ribs of death," in all their rough ugliness, and whe-u-uu, how every thing cracked again!

For the New England Farmer.

PLOWS.

To the farmer who tills but few acres it is quite an event to get a new plow. If he gets the right one, he may follow it a score of years rejoicing in its good works. If the wrong one, he may endure it with vexation much longer than he ought. In short, it is a time well worthy of a confab with friends and neighbors; so I take the liberty to write to my friend the editor. The plow now wanted, is a plow for "old land," as we farmers call it, that is, land that was planted last year.—Our Agricultural Societies seem to have strangely neglected this part of the plowing business, and in consequence or not in consequence, the improvements in plows for this work seem to have progressed somewhat in the style of the truant's journey to school that slippery morn, viz., two steps back and one forward.

The improved plow described by Mr. Holbrook two years since may be just the thing wanted (though I am afraid it is more the thing for light, pliable soils than for our stiff, stony lands) but otherwise I think there has been no plow made for old land equal to the old-fashioned iron plows made twenty or thirty years ago—short, wide behind and high beam. I recollect one of that pattern, I often held when a boy; there was no maker's name on it, but "Boston Iron Co.," on the casting, and in truth it was rather an awkward looking concern, but out in the last year's corn and potato field, it did its work up in a style hard to be improved. Throwing the soil aside with a clean furrow—seldom or never clogging—not easily thrown out of its true path by every malicious pebble lying in ambush, but burying the litter and manure all under and leaving the plowed

land nearly as smooth as if harrowed. My present plow, purchased of a famous Boston establishment six years since, and having twenty years *improvements* on it since the old one, is long and narrow and the beam low. It takes the soil up gingerly and tenderly as if afraid of disarranging a particle; part of it remains up in the shape of a little ridge and part rolls back in the furrow. If there is much litter or course manure it clogs, and like all lazy plows that I have held, is thrown into fits at sight of a pebble. In short, to work with it, is a bore to any man who wishes to do his work with a contented mind and a clear conscience; I threw it aside last spring, and did all my work with a sod plow. But let us come to the point. I think of making another sally among the plow-makers this spring, and I wish to know if any of the old sort are yet in the market! If so, I shall be tempted to give all improvements the cold shoulder and grasp my old friend heartily.

By the humble BACHELOR.

March 1, 1853.

REMARKS.—If "Bachelor" will call at the Agricultural Warehouse, Quincy Hall, we believe he may be accommodated to any kind of a plow he desires.

For the New England Farmer.

SHELL LIME.

SIMON BROWN, ESQ:—I noticed in a late number of the *New England Farmer* an advertisement in reference to the manufacture and sale of shell lime with a recipe for its use in agriculture, which I think promises well to the *Farmer;* displaying the provident munificence of nature and its readiness to reward the hand of industry as applied in agriculture, one of the noblest and most favorable employments. The following is the recipe—viz:

Take four barrels of lime to one bushel of salt, and one cord of mud or peat with one bushel of common salt. Dissolve the salt in water; with this solution slake the lime, and mix this compound with the mud. The result of this may be explained in the following manner. The salt is decomposed, its acid passes to the lime, forming muriate of lime, and leaving caustic soda in the mixture, which causes decomposition in the mud and the air, which is known to pervade and fill light porous substances. This arrangement furnishes the presence of elements, which form a valuable and highly fertilizing compound. These are brought into commingled action the carbon and elements of the geine, the oxygen, the hydrogen and the nitrogen of the air and the water, and new compounds are formed. The caustic soda renders soluble the peat—carbonic acid is evolved—nitrogen, hydrogen and oxygen form nitric acid and ammonia. That which is now muriate of lime becomes carbonate of lime. The muriatic acid repasses to the soda, re-forming common salt. When the action has ceased, there is nitrate of ammonia, carbonate of lime, and common salt, with soluble geine. When applied to the soil and growing plants, the nitrate may all be transformed into vegetable life; the other salts, besides contributing to the formation of the plant, are ready to decompose the elements of the soil, and render it more rich in nutricious substance. Thus it will be seen that nature is in readiness to contribute a rich reward to the industry of agriculture, and the farmer will be wise to regard her intimations.

The compound would be improved by the addition of ashes; but it is highly valuable without this addition, and forms a cheap economical, and certainly a highly valuable fertilizer.

BOWEN BARKER.

Hanson, 1853.

For the New England Farmer.

CELERY.

MR. EDITOR:—One word more about celery. It will soon be time to sow for celery that is to be dug in the fall; and it seems to me to be very important that all who intend to raise this article should get the *right kind*, for it costs no more to raise a *good variety*, than it does a *poor one;* and to those who have not been in the habit of raising celery, and intend to this year, I would say, when you go to buy your seed ask for "Seymour's," or "Seymour's Superb," as it is sometimes called. I think there is nothing better than this. I raised two kinds last year, and all who tried them pronounced "Seymour's" the best; sometimes I have bought what is called, "White Solid," but this is a great misnomer, for it is as hollow as a pumpkin stalk, and not much better for eating; it has proved so with me for several years. Seymour's are both white and solid, as well as good flavored. Winter celery should not be sown until the last of May or first of June. If any of your subscribers know of any better kind of celery than that which I have recommended, I should like to have them tell us what it is.

J. F. C. H.

Newton Centre, March 14th, 1853.

EXTRACTS AND REPLIES.

To S. W. Jr., *North Wayne, Me.* What is the best food to keep hens on, and will it answer to keep them in a building which is partly under ground?

Corn, barley, oats, wheat, potatoes boiled and mixed with meal, bits of fresh meat and scraps occasionally, and cob meal, scalded in winter, are all excellent for fowls. All of them may not be necessary, though they like a variety of food.—To this must be added, always, access to gravel; and if they can have lime-mortar, old bones, broken and pounded oyster-shells, they will like it so much the better. All this, however, will fail to make them profitable layers unless you furnish them with a warm, dry place, for shelter. They dislike cold and snow. If the shelter is dry and warm, admitting the sun through the middle of the day, it will not be disagreeable to the fowls, even though partly under ground. We have kept 30 hens through the winter, and average one dozen eggs each day, and consider that the hens do all that ought to be required of them, when it is taken into account that there is constantly from three to five hens out of the 30, all the time clucking and wishing to sit. Indeed, this propensity to sit is the greatest trouble we have with fowls. Our hens gave the same product through the win-

ter of 1852, although the weather was extremely cold.

We are really obliged to S. W., Jr., for his good opinion of the *Farmer*, and will endeavor to continue it what he says it is now:—"a plain, common-sense paper, and such as every farmer ought to take."

To W. B. W., *Gilford, N. H.* Your letter was mislaid, or it would have been noticed sooner. Every churn that comes to us is recommended as the *cheapest and best*. For a dairy of six or eight cows we have found nothing better than the common thermometer churn. But then we have never used Willard's, Davis', Clarke's, and many others that are said to be good. The quotations in our price current list are corrected weekly by the dealers themselves, and the prices do not vary materially among them. Shorts have ranged considerably higher than quoted at the date of your letter.

To B. F. R., *Freehold, N. J.*—An acre would be quite small enough for the range of 200 fowls, and if it were *five* it would be better. There should be plenty of water, and shade—a running stream is desirable. We do not think a building of any size would be too large, providing it had a tight sunny corner for winter use. Build as large as you can afford. No part of farm stock suffers more from being crowded than our domestic fowls. We have never known them profitable where they were in large numbers and crowded. We have the plan of a building for fowls now in progress, which will be given soon. If you are near a city or village, where "swill" can be collected, you will find it excellent in such a collection of fowls.

To J. W., *North Springfield, Vt.*—"Can guano be used profitably in raising corn?" Yes, but we would not spread manure on the sward and turn it under, as your practice seems to be; because if the plowing is done well, the manure will be under the surface some 6 to 10 inches. Is not that the reason of your corn "invariably looking pale?" How will this plan answer:—Just before you wish to plant, turn over the sward, (already covered with a green crop,) to the depth of 8 or 10 inches, spread the manure broadcast and work it in well with the cultivator. Then, after furrowing, drop a handful of guano mixed with old muck or loam, into the hills? You then have the guano to give the plants their early support, while the broadcast manure will gradually decompose and feed the roots as they stretch away in search of sustenance. The application you make of two parts ashes and one of plaster, is capital.

The Potato Disease.—We have had on our table for some weeks a long report on this subject, from a committee of the New York Assembly, and also two or three long newspaper articles on the same subject, by Chauncy S. Goodrich, who claims to have found a remedy for the disease. He thinks the disease occasioned by climatic influences, and that the remedy must be the repeated reproduction of the potato from the seed balls. In the present crowded state of our columns, we have no room for extracts.

To E. A., *Providence, R. I.*—The plan of *feeding bees*, given below, Mr. A. says he has tried and found to work well.

"Take of cheap West India honey 1 gal., 10 lbs. of white coffee sugar and 2 qts. water; heat it all over the fire until it *begins* to boil, skim it, and when cool it is ready for use. Feed in a wooden trough, or tin pan, with perpendicular sides, with a float on the feed; the float is made of wood, an eighth of an inch thick, just large enough to fit the inside of the tin pan or wooden box, and have it play up and down easily. Fill the float with small holes by first making holes with a brad awl, then burn them out with a hot iron made for the purpose, but not so large as to admit a bee. Keep the feed in a cool place when not in use. Bees can be fed in this manner with the utmost ease, and in any kind of hive, either inside or out."

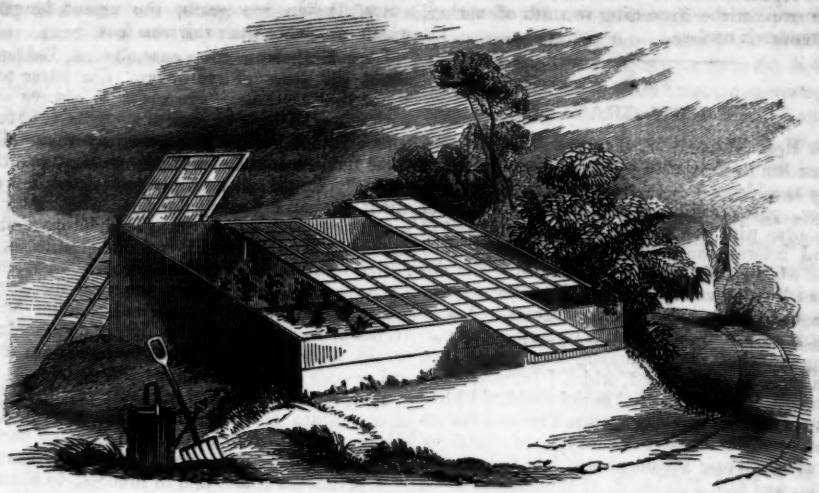
To J. J. J., *Wellsboro', Pa.*—Will send grafts of the Hunt Russet as requested—cannot obtain the pear.

A Reader, *Taunton Ms.*—We should graft the pear tree you speak of with the Bartlett, as it does well on old trees, and will return you a crop in three or four years. The Vicar of Winkfield is not a first rate fruit, but is hardy and productive.

To C. H. R., *N———, N. H.*—You need a rich, moist loam, for strawberries—the deeper you dig it the better. Any good manure is suitable, liberally applied and well spaded in. Set the plants in April, when they have started, so that you can see which are the vigorous ones. Set them in rows three feet apart, and one foot apart in the row. Hovey's Seedling, Boston Pine, and Early Virginia, are perhaps, as good as any. When the plants are well up, an occasional sprinkling of guano water, say one or two quarts of guano to a barrel of rain or river water, if it is convenient, will have a wonderful effect on them. For further particulars, see the 3d vol. of the *New England Farmer*.

To. L. T., *Sutton, Ms.*—Guano should not be suffered to take the place of manure which may be made from the natural resources of the farm. But as an adjunct, something to aid in restoring lands too far from home to cart manure to, or where it is found desirable to renovate old pastures, guano will come in as a capital auxiliary. So it may be profitably used in gardens, particularly in liquid form.

There are different qualities of guano—the Peruvian is considered the best. The price is now $50 a ton. It may be found at Quincy Hall, Boston.



FORCING VEGETATION—HOT-BED.

We have compiled the above mode of management from SCHENK'S GARDENER'S TEXT-BOOK, published by J. P. JEWETT & Co., 17 Cornhill, Boston, which may be referred to for more particulars on the subject. Those unacquainted with the methods of forcing in hot-beds, will, of course, proceed carefully, step by step, by making such inquiries as will assist them in the work.

Forcing is the art of accelerating the growth of plants, by the warmth afforded by certain fermenting substances, so as to obtain vegetables at unusual seasons of the year. The practice appears to be as old as the time of the Romans. We consider its chief value to be in raising young plants for removal to the open ground in spring.

In American gardens, forcing under glass is generally conducted in frames and pits. There are several substances employed in obtaining this artificial heat, such as tanner's bark, leaves and grass, but the fresh dung of well-fed animals is generally preferred.

The first object is to get rid of the violent heat and rank vapor produced when fermentation is most powerful. For this purpose, a certain degree of moisture and air is necessary; and, therefore, it will be the gardener's business to place the dung in a conical-shaped heap near the place where wanted for use; to turn it over about once a week, shaking it well together, so that all parts may be equally exposed to the atmosphere; and to apply water when the materials appear at all dry. In cold, wet or boisterous weather, the heap ought to be covered to a moderate depth, with coarse stable litter.

There is considerable difference of opinion, with regard to the time that stable dung shall be permitted to lie thus in the heap. Care must be taken that the process is not carried too far, as in that case there will not be sufficient heat left for the bed, and the plants will be rendered small and sickly. Perhaps it is a good rule, to wait until the greater part of the straw assumes a dark brown color.

The hot-bed should be in a place free from the shade of trees or buildings, and having an aspect rather a point eastward of the south. Shelter on the north-west is particularly necessary. The next labor will be to mark out the dimensions of the bed, which, on all sides, ought to be at least ten inches larger than the frame, and a stake should be driven down at each corner as a guide for keeping the edges perfectly straight.

The general rules of management are:—to keep the sashes covered with boards, mats or straw, during cold nights and severe storms; to admit air freely in pleasant weather, by sliding down the sashes for an inch or two, or by raising them up with wedges at the back part of the frame; and occasionally to apply water in moderate quantities, after it has been kept in the frame for at least twelve hours.

The air within the frame should be frequently renewed, or the plants will become spindling, with a sickly, yellowish color.

As soon as the heat is found to decline, "linings," as they are called, should be applied. The litter having been first removed, the edges of the bed are to be cut down by a spade close to the frame. It may, perhaps, be best to take only one side at a time, by which means the heat will be rendered more regular and permanent. Several holes are to be opened in the manure by the crowbar or a large stake, and a bank, or "lining," of fresh dung, is to take the place of that which has just been removed. The width of this "lining" will vary from ten to twenty inches, according to the coldness of the season; and it should not be carried up much higher than the bed, lest the violent heat escape directly into the mould, and thereby injure the roots of the plants. To prevent the heat being wasted in the air, it will be necessary to cover the

lining with a few inches of earth. This process may be repeated once or twice, until the maturity of the crop, or the increasing warmth of spring, shall render it useless.

For the New England Farmer.

A NEW GRASS.

To the Hon. Marshal P. Wilder.

Dear Sir:—You will justify me in taking the liberty to address you (through the *New England Farmer*, our common friend, and a medium of intercourse with the fraternity,) upon a subject of general interest, and especially in view of your known wishes and facilities for furthering the demands of our yeomanry. It is to introduce to your notice a new seedling variety of grass. A species of Bromus obtained from a *single plant* of surpassing luxuriance found among English turnips, grown from imported seed, which I transferred to my garden, and raised what seed I could, till I had twenty acres of it growing, when I invited the attention of our Worcester County Agricultural Society to it. Their President, the late Col. J. W. Lincoln, and Col. Estabrook, of the committee on farms, came and viewed it. One field of five acres, waving higher than their heads—some seven acres of pine plain in pasture; and a mow of three tons fragrant hay, cut in bloom, from one acre. The President remarked, "It is well worth a journey from Worcester, to see this *splendid grass*." A notice of it, with my letter, appeared in their Annual Report, 1851, pages 67 to 70, to which please refer. You may find a brief description of its properties in my letter to Hon. J. Davis, Chairman of the Agricultural Committee held in the State House, Feb. 13. Subject, Grasses; published in the *N. E. Farmer*, June, 1852, and *Mass. Ploughman*, April 17. I have taken much pains by correspondence and by sending specimens of my Bromus seed to England, and by comparing it with the seed of their Italian Rye Grass (which it most resembles) to ascertain its relative properties and value. The result is decidedly in favor of mine, as to early maturity,—greater productiveness—and the nutritive value of the *seed* being full twice as heavy as any English variety I have seen; which, I think, they never use for feed. This excellence I attribute to the artificial culture to which I have subjected it; always saving the seed from crops the *first* year after being sown, thus inducing the habit of an *annual* upon the plant. In other respects, *all they say is true of mine*. I quote a few of many encomiums.

The Messrs. Lawsons say, "The *Italian Rye Grass* produces many sub-varieties; as a proof of this, we received, one year, specimens of no less than fifty distinct spikes, collected in a field near North Berwick. It is eaten greedily by cattle, green or dry. It yields fifty per cent. of hay.—It is excellent feed for working horses and makes abundance of milk from cows. It is valuable as an early grass and retains its power of growth to a late period in the season. It withstands the severity of winter when sown late."

Mr. Dickinson says, "it fits well for sowing in mixture with other grasses intended for permanent pasture. It is in high repute, and is invaluable for the alternate husbandry. Ewes and lambs do better upon it than upon any thing I have given them." Colman says, "I saw it in great luxuriance the second years' growth. I saw in Manchester the produce of three cuttings of one season of Italian rye grass, the united length of which was more than thirteen feet."

Lord Hatherton sows annually at Teddesley, about 100 acres of rye grass. His letter to me states that "common rye grass is always sown with clover, about one peck of rye grass seed to the acre. Italian rye grass is generally sown alone, three bushels to the acre, and may be mown three times." I will not multiply quotations, but submit it to your superior judgment, whether to present the subject to our State Legislature first, or to our State or National Board of Agriculture. If either or all of them should recommend it, or offer a premium for raising the seed for 2 or 3 years, or send s ome to different societies for distribution in small samples, its wide circulation would, in a few years, bring it beside our standard grasses with a fair supply.

It gives me increased pleasure to write you, as one aware of the great amount of capital and science, which in Europe and in England particularly, are embarked in agriculture, and of the costly experiments made, and in process, to ascertain and diffuse knowledge of the best measures—and by the *Royal* and other societies, clubs, and premiums, to awaken and encourage a deeper interest in improvements in every department of the art, requiring capital, labor and skill. If English landholders have demonstrated that the *heat* on a soil thoroughly underdrained and *deeply pulverized*, operates at once to promote vegetation, which *without* it would be employed in evaporating stagnant water, for days and perhaps for weeks, by which the crop is lessoned, and often lost, it needs no argument to prove the wisdom of a measure that makes *sunshine* available for the *profit* of labor to prepare the *soil* as well as the woodpile. If by skilful feeding they have found that twice the amount of stock may be kept by summer soiling, that could be by pasturing, from the same acres, to which the *stall* of all, being saved, is applied, and if absorbents may be used to prevent the escape of ammonia, and greatly to increase the value of manure; if a breed of cattle, sheep and swine, &c., may be obtained by systematic breeding and crossing that will return 20 or 30 per cent. more than otherwise could be had for the same cost—and if science and experience will equally improve fruit, vegetables, implements, buildings, &c., leading to eminence in farming *there*, then surely, those kindred spirits in *our republic* should be encouraged, who, by importing the choicest stock and seeds and trees, or by the press—or lectures—or by study of Nature's laws, by tests and demonstrations, are bringing out new facts and remedies—or by associations, visits and correspondence, are seeking to bring every farmer to share in the knowledge, toil and gain, to what the spirit of the age invites him, by co-operation. With respect, yours truly, Benjamin Willard.

Lancaster, Jan. 30th, 1853.

Mr. Clift's Address.—Through the polite attention of Rev. Mr. Clift, we have received the *Transactions of the Windham County, (Ct.) Agricultural Society*, for the year 1852, together with Mr. Clift's Address. It is printed neatly, and the reports show a prosperous state of affairs in the

society. The address is a capital one, taking hold of the right points and urging them in the right way. It cannot fail of doing much good. We are indebted every day, to the clergy, for some of the best efforts put forth to advance the long neglected cause of agriculture—to dispel the gross darkness that sits upon the people in relation to an intelligent cultivation of the soil. Mr. Clift will please accept our thanks. We hope, hereafter, to find room for extracts from the address.

LEGISLATIVE AGRICULTURAL MEETINGS.

Sixth Meeting—Tuesday Evening, Feb. 22, 1853.

The sixth meeting of the series was held in the Representatives' Hall at the State House, on Tuesday evening.

The meeting was called to order by Mr. B. V. French, of Braintree, and Mr. Proctor, of Danvers, was invited to preside. The subject was then announced,

"The expediency of establishing Farmers' Institutes in the several counties of this State, and the best mode of perfecting such organizations."

Mr. Proctor, in taking the chair, remarked that he was unprepared to discuss the subject. He announced with regret, that President Hitchcock, of Amherst College, who had been expected to attend, and address the meeting, was not present. He expressed the opinion that the establishment of farmers' institutes, would prove most beneficent to the farmer,—more especially to the young farmer, who, by an attendance on their lectures and a participation in their discussions, could not fail to learn much that he needs to know. He would not have them established by the State, but formed and sustained at the expense of the farmers themselves.

Amasa Walker expressed himself pleased with the subject, because it was in harmony with the spirit of the age, which tends to association, and because it is evident that there is a great revival in the agricultural interests of the Commonwealth. He thought there was no doubt that the project would meet the approbation of agriculturists throughout the State. The speaker alluded to the greatly increased interest which teachers' institutes have awakened in the cause of education, and remarked that something similar must be done to bring agricultural education home to the mass of the people. Farmers' institutes are just the things for diffusing agricultural information, both new and old. The scientific man and the practical farmer would be brought together, and every period of improvement in regard to agriculture would be brought forward and discussed. As evidence of the need of exciting increased interest in agriculture, he stated that not more than one man in three in the State now takes any interest in the matter, and premiums are distributed only in the proportion of one in five towns.

Mr. Brown, of the *New England Farmer*, in reply to a call from the chairman, said that he had no definite views in regard to the subject, but he thought it was necessary to do something to increase the interest in agriculture; and he believed that when the time came to establish institutes, they would accomplish great good, not only in this State, but throughout the country. But first, he thought, primary associations should be formed in each town by the farmers, for mutual consultation and discussion on all subjects of interest to them; and by this method they would qualify themselves to form and conduct the higher association, or institute. By the formation of farmers' clubs in each town, and the attendance of farmers upon them during the winter, he believed the lands and crops of such towns would exhibit an increase in value of one per cent. from year to year; farmers would become more intelligent by such mutual counsel. He thought the time had not come to call upon the State to do anything more for the farmer than she has done already, but when that time did come, he believed that she would be found liberal.

Mr. Brooks, of Princeton, coincided with the views expressed by Mr. Brown. He was not prepared at present, to advocate the establishment of an institution similar to the teachers' institute. That provides for lectures; and the lecturer must have a text or fact to speak upon; and where will that text come from? It must come from science; but we have no American agricultural science. We cannot raise either wheat or cattle as they do in England. The speaker enforced this point by illustrating the inapplicability of the conclusions of English science to farming in this country, as in draining. Yet, many towns, he said, already had small farmers' clubs, and he believed they would prove of great benefit.

Mr. French, of Braintree, would have the county societies set apart a day or half a day at their annual exhibitions, to listen to lectures from able men, and to discuss agricultural subjects. People are awaking to the importance of the agricultural interest, and demanding a higher class of instruction than they have hitherto obtained. Ohio has ninety county societies, sustained by the State. He did not agree with Mr. Brooks, that we have no reliable agricultural science, and referred in proof to the statement of Mr. Custis, before the National Agricultural Society, that at one time he cultivated 8000 acres of land with 100 men, and raised only 700 bushels of wheat—so exhausted and sterile had become the soil; but after being instructed by Edmund Ruffin how to fertilize his land, obtained from it 7000 bushels of wheat.

Mr. French stated that from personal observa-

tion, he should judge that not more than six in one hundred acres of land throughout the State were in a condition fit for the use of the plow. He thought this strong evidence that our people need stimulating.

Dr. Reynolds, of Concord, remarked that it was a most important subject, upon the solution of which might depend the question whether our young men should cultivate their native acres, or dig in the golden sands of California or Australia, though it had been remarked that they were choosing the latter. What is necessary, is to make agriculture more respectable and successful—not that he meant it was not respectable, but that it should be made more respectable in the eyes of our young men, who are taught even by their fathers that it is unprofitable, and beneath the ambition of enterprising men; that it is fit only for men who can do nothing else; and that men who have failed in all things else can fall back upon it. Young men must be taught to give weight, influence and character to farming; and this can only be done by making it more intellectual. When the intellect is as vigorously exerted in agriculture as in other professions, it will engage the ambition of our young men.

Intercourse among men, he urged, was a great means of increasing knowledge, and by means of institutes the farmers would be brought into more frequent intercourse with each other, to their great benefit. The mind strikes out new paths, and new thoughts are eliminated. The speaker alluded to the teachers' institutes as improving and stimulating the teachers themselves, and rendering them more efficient, from which he inferred the same result would follow the establishment of institutes for the farmer.

He believed that much benefit would accrue from lectures, and had no fear from the diffusion of science even in its present state, or that the theories of scientific men would mislead our strong common-sense farmers to any great extent. Science is the basis of all true agriculture. The speaker recognized the necessity of kindling up an increased interest among the farmers in our State, and expressed the opinion that the Board of Education had a duty to discharge in reference to the matter. They should secure the introduction into our high schools of the study of agricultural chemistry, geology, &c. It would be of great benefit, and prepare the way for agricultural colleges. We should begin in the small circles.

Mr. Sprague, of Duxbury, expressed himself favorable to the formation of such institutions, and gave it as his opinion that more is to be learned by intercourse with well informed men than in any other way. The difficulty with farmers, is, that they make a great many mistakes owing to a lack of accurate scientific knowledge. We cannot discuss agriculture without benefit.

Mr. Coggswell, of Bedford, remarked that the more intelligent the farmer, the more successful he would be,—farmers should be thinking, reflecting men, and should study their soils as closely as the physician does the *materia medica*.

Prof. Nash, of Amherst College, thought much might be done without legislative aid, by voluntary association. He agreed with Dr. Reynolds, that it is necessary to make farming appear more respectable to our sons, and the only way to do this is to make it more intellectual. These institutes will have a tendency to draw out the farmer, and make him more intelligent. In regard to lectures, the lecturer should not only be thoroughly versed in agricultural science, but also be a practical farmer, else his teachings will be liable to mislead.

Mr. Brooks, of Princeton, in explanation of his former remarks, said he would not be understood as opposing science, lectures, or farmers' institutes. The meetings, so far as they bring farmers together, are useful. Farming is extremely variable, and the same rules of science will not always apply. As for instance you may raise wheat on one side of a hill, and not upon the other, although the soil is identically the same.

The hour of adjournment having arrived, the meeting adjourned until Tuesday evening next, when "The cultivation and preservation of Fruits" will be taken up for discussion, and an interesting meeting is anticipated.

For the New England Farmer.

HOUSING AND PAINTING FARM VEHICLES.

It is strange what a difference there is among farmers with regard to the importance of housing their wagons and carts. Prudent, economical men, in most things, are wholly insensible to the great loss they experience by allowing their expensive vehicles to be beaten upon and soaked by the storms, and checked and shrunk by the blazing sun.

Wagons and carts from the maker's shop are seldom well-painted. The owner gets so anxious to be using his new cart, and the old one seems so unbearable, that the cart is taken from the shop before the little openings in the wood and the joints are half filled with paint,—the farmer "guesses it will do," and away it goes to commence a straightforward course to decay. A few days after, it rains. The cart body is soaked through. The joints absorb water and swell. By-and-by, when the water has dried out, after having been dragged about the farm for several days, the joints become loose. This process needs only to be repeated a sufficient number of times to give you a heavy, rickety body, which, in a few years, breaks up and sends you to the mechanic again.

But the wheels are the most important part. Upon them has the most labor been expended in proportion to their weight, and of them should the most care be taken. The hubs, generally, are made of elm. Elm, exposed to the weather, is of short duration. It is used because it is difficult to split it in driving the spokes. White-oak hubs invaria-

bly check and open, when uncovered by paint, and exposed to the weather. White-oak timber,—indeed all timber, loses its strength and tenacity after being again and again exposed to rain and air. The hub then grows soft, the spokes settle into it a very little, and the consequence is that the tire is loose, and the blacksmith's aid is needed.

A wagon left out of doors will in a few years become a spongy, heavy mass, unprofitable to use. As proof of the correctness of these remarks, we know of a farmer who has run down three sets of wheels by exposure, and not by work, while another has a pair of wheels perfectly sound, built a year or two before his neighbor's first pair. In the first case the wheels have never been housed, winter nor summer; but have been left by the road-side, as if impregnable as the stone wall to injury from the weather. In the other case the cart has been uniformly housed, and always well painted. It must be very intelligible to the reader which is the wiser course.

PAINTING FARM VEHICLES.

The reasons for painting farm vehicles as well as housing them are many and obvious. Paint affords a present shelter. You are sometimes necessarily out in the rain. Your well-painted wheel will be injured but a little. Paint closes up the pores and keeps in that life of the wood, which is its whole strength. Besides, a man will work more cheerfully and accomplish more when things are a "little decent" about him. The appearance of good, convenient, respectable vehicles about a farm is always agreeable to the stranger. Their influence too, upon the laborer's spirit and temper, is worthy of consideration.

A word as to the colors most suitable to use in painting. As your vehicles will have to be out in the hot sun, while in service, the lighter the color the less will the wood shrink. A wheel painted black will become as hot in the sun as the hand can bear; while another painted a light lead color, which is the cheapest, will be cold to the touch. Of course in the former case the wood will shrink, loosening the tire, while in the latter all will reman firm. W. D. B.

Concord, 1853.

For the New England Farmer.

WHAT MANURE FOR SWAMP LAND?

Mr. Editor:—I would like to inquire what is the best manure for swamp land, where the vegetable matter is two or more feet deep? I have used common horse manure with good success, after draining, plowing, pulling out the roots, &c., and seeding to grass in the fall. On such land I get about two tons to the acre, of English grass.

I have thought there might be a cheaper substance than manure to bring such lands into English grass, if I only knew what it was. I know that it is recommended by some of your writers, to spread over sand or gravel, and then manure, but that is too expensive here, where hay generally is about $8 a ton. E. Scott.

Ludlow, Vt., 1853.

Remarks.—If you get two tons per acre as a general result, it ought to be a satisfactory crop, unless an extraordinary amount of money and labor is expended. There is nothing better, probably, in the long run, than good barn manure, composed of the droppings of horses, cattle, swine, sheep and fowls. But on some of your new swamp land you might do well to try lime on a small piece, on another ashes, on another guano, watching carefully the results of each. New swamp lands contain generally, most or all the elements which the plant needs; but they sometimes require sand or lime, as they have an excess of acids, at first unfavorable to the growth of the plant. Thorough plowing, plenty of composted manure, and such experiments as we have suggested, will bring you satisfactory results, if you persevere.

For the New England Farmer.

STOWELL'S EVERGREEN SWEET CORN.

He who expects to find this article as much superior to the common sweet corn, as the ambrosia of the gods is to the food of mortals, will lay down his cob, and pick his teeth in disappointment. He will rise from the table, and call it a humbug. The fact is, he who has good sweet corn upon his table, picked at the right time and well cooked, has an epicurean dish, that he might ask any sensible god in the mythology to partake of, without fear of refusal. Should some German commentator upon classic lore undertake to prove, that this was the veritable ambrosia, it would be difficult to disprove his position. The man who does not appreciate sweet corn, and consider it a standard of excellence, lacking no element of gustatory satisfaction, is not the man to appreciate anything. But were the Stowell's decidedly superior to all other kinds, for the table, we should not expect to have the multitude believe it, even after they had tried it. We have heard a very sensible man assert, that common field pumpkin made as good pies, as the marrow squash of Boston notoriety. From that date, our path was very much strengthened in the old adage, that there is no use in disputing about tastes. If the new variety of corn is as good as the old for the table, and has other excellencies that the old does not possess, it will prove an acquisition.

It has been introduced to the agricultural public, mainly through the agency of Prof. Mapes, who has sent out thousands of samples of the seed to the readers of the *Working Farmer* in various parts of the country. He gives the following account of its origin in his paper for Dec., 1850. "Stowell's sweet corn is a new sort, and is every way superior to any other we have seen; for after being pulled from the ground the stalks may be placed in a dry, cool place, free from moisture, frost, or violent currents of air, (to prevent drying,) and the grains will remain full and milky, for many months. Or the ears may be pulled in August, and by tying a string loosely around the small end, to prevent the bushes from drying away from the ears, they may be laid on shelves, and kept moist and suitable for boiling, for a year or more. This corn is a hybrid between the menomony soft corn, and the northern sugar corn, and was first grown by Mr. Nathan Stowell, of Burlington, N. J. Near the close of the fair of the American Institute, 1850, I presented the managers with two ears pulled in August, 1849, and twelve ears pulled in 1850.

They were boiled and served up together, and appeared to be alike, and equal to corn fresh from the garden.

"The ears are larger than the usual sweet corn and contain twelve rows. To save the seed, it is necessary to place them in strong currents of air, freed from most of the husks, and assisted slightly by fire heat when nearly dry. In damp places this corn soon moulds, and becomes worthless. The seed, when dry, is but little thicker than writing paper, but is a sure grower. The stalks are very sweet, and valuable as fodder."

A writer in the *Rural New-Yorker* tried it in 1851, and speaks thus of it. "Until it began to tassel out, it appeared very much like enormous broom corn, and exhibited no symptoms of putting forth ears, until very late in the season, when it eared out rapidly, and bore three very large full ears on all the best stalks, and in some cases the fourth ear was fairly set. Only a very few of the stalks bore single ears. It matured rapidly and very perfectly, but it was many weeks after frost set in, and the corn was housed, and after the husks had become entirely white, before any of the kernels presented the shrivelled appearance of sweet corn.

"That it will do all that has been said of it, I have no reason to doubt. As far as my observation during one season extends, I am satisfied it is a most valuable acquisition to our sweet corn. It grows freely, is of the first quality, and produces in my garden this season far beyond any corn I have ever seen. Beside the greater number of ears on a stalk, each ear and kernel is very large, although it dries down for seed to a very small ear and kernel. Very few of the ears have less than fourteen rows, and I have just noticed an ear of it only 7 inches long and yet it had 16 rows, and contained more than 800 kernels. The day I planted this corn, I planted an equal number of hills of a very superior sweet corn, the kernels of which most perfectly resemble this, and although the exposure and soil was equal, yet the Stowell corn surpassed it in every respect. I shall try it another season with increased interest."

Another writer in the same paper gives us his experience for 1852. "When I read of the wonderful productiveness and keeping quality of this new kind of corn I rather regarded it as a humbug. However, I bought a gill of corn for 25 cents, and planted it May 25th in rather an unfavorable spot for late planting. But it matured in good time, and produced from three to seven perfect good ears on a stalk—and one stalk had on it *sixteen*—the shortest about two inches, but well filled out, and all ripe enough and good for seed. I wish to record my vote in favor of the Evergreen Corn—*that it is no humbug.*"

I will add to these trials of the article my own experience for the last two seasons. I procured a few seeds from the office of the *Working Farmer* in New York in the spring of 1851. Planted them late, but owing to drought only 6 kernels came up. I had 18 perfect ears from these 6 kernels and two imperfect ones. This showed the corn a very superior bearer. The growth of stalks was large.

I had now seed enough to plant about one-third of an acre, after giving away some to friends. The soil was badly exhausted by tillage and was not highly manured. But the growth of stalks was large, and the yield of corn satisfactory, though the season was one of great drought and corn suffered much throughout the country. Some of the stalks had three ears and many of them two, with settings for more, showing what it had a mind to do if there was only food enough under it. I have no doubt at all, that in very rich soil there will often be three ears upon a single stalk—and some stalks of twice that number. We may then set down the advantages of this sweet corn as mainly the following:—

1st. Its exquisite flavor is not injured by the hybridizing, as has been the case with other attempts at crossing the sweet corn with other varieties.

2nd. It secures a very much larger yield of corn. The number of rows upon an ear varies from 8 to 20; a very large proportion of them are 12 and upwards. Most of the larger ears have from 4 to 800 kernels upon them. Then we have more ears upon a stalk.

3d. It prolongs the season of green corn in the garden until frost comes, and if it be pulled up by the roots and sheltered, it lengthens it out until freezing weather.

4th. If you have a fruit room, where you can command the temperature, you can have green corn the year round on the cob. But as we have no such room, we have not tried this part of the experiment.

5th. It furnishes the largest amount of fodder of any kind of corn grown in the world. Prof. Mapes says, "the Stowell corn, when thickly sown, will yield double the burden of stalks and leaves of any other corn we have tried. It is more readily cured, and preferred by cattle even to the best English hay."

The only draw-back upon it, is the danger of its going back to the originals from which it was produced, a danger that is common to all hybrids, I believe, until they have become very thoroughly established. Whether the variety of rows that the different ears assume is any indication of a relapse, the experimenter must judge for himself. I have full confidence in the article, and believe it a great acquisition to the garden and the farm.

W. Clift.

Stonington, Ct., Jan. 17, 1853.

MILK TRADE OF NEW YORK.

We have before us an elegantly printed volume of 118 pages, published by Fowlers & Wells, Boston, in which it is stated how the production, manufacture and sale of milk in the city of New York and the vicinity is managed. By John Mullally, with an introduction by Dr. R. T. Trall. We must say that the developments are of the most astounding as well as disgusting character. It is no longer a wonder that upwards of *nine thousand children* die annually in the city of New York, and as is supposed by the physicians, poisoned by an article called *milk*.

Mr. Mullally, and all engaged in exposing this iniquitous and brutalizing business, are entitled to the thanks of the community for their efforts in the matter. The book should be in the hands of every head of a family, that parents may see what it is they feed to their children under the name of *milk!* The milk business in our New England ci-

ties is fast becoming an important one, and unless there are proper guards and restraints thrown around it, we shall, quite likely, by-and-by, have a similar state of things among us here. There are frauds practised within our own personal knowledge, which lead us to this opinion. The book may be sent by mail to any part of the country for a trifling postage. The New York *Courier* says Mr. MULLALLY has given a fair, faithful and impartial view of the whole milk trade in that city:—

"He exposes the horrible system of distillery milk manufacturers—the process of making sweet cream out of distillery milk, hogs or calves brains, molasses and chalk—and sketches with a vivid and powerful pen the multitude of evils that arise from the infamous traffic. He gives us a description of a swill milk establishment and its internal economy, as well as the disgusting practises and brutality of those employed in them—a description almost enough to make the reader forswear the use of milk in the city forever. The *exposes* of the work are positively shocking. We knew that abominable, disgusting frauds were practiced by the milk dealers of the city, but really, we were not prepared for such an exhibition of human depravity and cupidity as is here bared to our view."

For the New England Farmer.

FARMERS' LIBRARIES.

MR. EDITOR:—In a former number of the *Farmer* I made some remarks on the benefits of Agricultural lectures in lyceums. This was done under the impression that such institutions were in operation in all, or nearly every town and hamlet wherever the remarks might be so fortunate as to be read. I suppose such institutions are, through the winter months, in existence almost everywhere. But a new question comes up with regard to them. Are they established on the principle of firmness, and conducted with the systematic order that such associations should be? I refer now to lyceums in agricultural communities, where the intellectual wants are more for agricultural information, and prosperity arises more from agricultural success than from any other natural cause.

Now I have a beau ideal of what such a lyceum should be. In the first place, it should be an *agricultural lyceum*, embracing in its phalanx those who design to cultivate the earth as a profession, and who have enough respect for that profession to give their influence and hearty good-will to elevate it to the position where nature and nature's God designed it should rank. I am very well aware this picture, which should everywhere be visible, is a bold one, and implies many things. In the first place, I suppose it clearly shows, that to be a farmer does not imply "a mere clop-hopper," an animated mass of clay whose noblest attribute is physical energy, excited by the idea of adding field to field, and increasing the swelling numbers of herds and flocks.

No, the position I take elevates him above all this, and defines him as an *intellectual* being, sent into the world to pluck out the thorns and thistles that man's perverseness sowed, and plant roses and myrtles in their place. It is for him to make the desert smile in verdure, and waste places to yield bountiful harvests. He is, through all coming time, to give bread to the millions of earth, and when he draws its rich treasure from her teeming bosom, he must do it in so kind and restoring a manner as not to exhaust her resources. *Mind* must guide in these operations, and to do it successfully, mind must be enlightened by science as well as aided by experience, or too often its noblest efforts will prove abortive.

Now, how is this farmers' lyceum to aid him in this intellectual culture which is so very essential to the cultivation of the earth? We have spoken of lectures as one means, a very important one, too, on many accounts. But these are incidental, *periodical*, coming, it may be, once a month, though I should hope oftener. At any rate, there must be a gap between them, and these gaps in the progress of mind, like the rent in a garment, unless fitted up and closed, will be very apt to become larger, until *the whole* is rent. I say, then, to fill up this empty chasm as it will too often prove, that in connection with, and as a part of these lyceums, *the library* should form an important feature.

Agricultural libraries among farmers are not an unknown feature of the age; all, however, do not seem disposed to possess them. But get up such libraries in connection with the lyceum, and for ought we know, all would read. At least, we may fairly suppose that many will. Now how trifling would be the expense for the members of an agricultural lyceum to take *all* the first-class agricultural publications. And with an equal sum thereto added, what rich collections would be made each year in scientific works on matters relating to the farmer's well being. By these, young farmers would be taught the principles and progress of science, and by the former, he could learn the result of these principles when reduced to practice, their failures and successes.

O! what a beautiful ornament such an institution, endowed with a well selected library, adapted to its progress, would be to any town in our good old State. Yet how many such can our State boast? Have we one? Where is the goodly land where it may be found? We would gladly go there in the expectation of seeing unusual thrift, countenances beaming with happiness and contentment, bought by the rich gift of intelligence, operating like a main-spring to regulate all movements.

How many farmers have we in Massachusetts, who will pledge themselves to become even sitting and hearing members of such an association? If there is a town where ten, nay five, can be found, who will meet once a week to hear and talk about farming,—*resolved* that noble effects shall grow out of it, the agricultural destiny of that town can be saved. A lyceum, like the one I would have in every town, would soon be established, the intelligence of the inhabitants would brighten under its influence,—a purer stream of thought breaking out, and fed from fountains of truth, would purify all parts; the earth would smile under more varied and richer harvests. Here it would be found that competence and wealth could be drawn from the earth, not by "servile labor," but by well-directed, careful industry, such as men in every sphere must practice in order to succeed—in short, happiness as pure, intelligence as high, refinement as chaste, as earth can afford, would here be found. Taste would aid economy in rearing buildings, planting trees, dividing of fields—indeed, in every-

thing to make earth beautiful, home delightful, and all things pleasant to enjoy.

And would not these attractions tend to check the spirit of discontent which is now bringing so many young men into scenes and occupations which are drudgery in comparison with the farmer's life! Farmers in the present day, if you would have your sons respect the profession which you have followed so calmly through life, if you would have them stay "on the *old homestead*," dear to you from a thousand associations, and which you may wish to retain in your family,—if you would save them from vice and folly—to which new scenes frequently allure,—teach them that mind can find as great a sphere for operation in the farming fields as in the pent-up shops and counting-rooms, and that independence is easier won in the pure air of the country, than in the dingy, contaminated atmosphere of town, and encourage the farmers' lyceum as a means of elevating them to the positions they so earnestly desire. W. B.

Elmwood, Jan. 22, 1853.

Remarks—We commend the above remarks to everybody. It will be gratifying to friend B. to learn that the farmers of the State are occasionally getting an agricultural lecture in the town lyceums, and surprise him as much to be informed that probably not one town in ten in the commonwealth has a farmer's club or lyceum, where agriculture, in its higher phases, is discussed. Here and there, in the town libraries, a few agricultural books are supplied. Where there are no town libraries, farmers cannot do better than to form a club, and purchase a few of the best books for their own purposes, and when the town library is formed, merge them in that.

ROOTS VS. HAY.

Many farmers are loud in their denunciations of roots as a substitute for hay in feeding stock. They regard them as vastly more expensive than the latter, and in every important respect, inferior. Some who were formerly loud in their praises of ruta baga, sugar beet, parsnips, carrots, &c., are now as loud in their denunciations. Truth, we opine, hovers in the middle region between these extremes, and it may not be improper to call the attention of those interested in the premises, to a few facts which have a very important and direct bearing upon the subject.

As far as mere nutriment is involved, we are by no means in the dark concerning the value of any farm product, not excepting even the meanest and most worthless. Science has already made us acquainted with this part of the subject. We know that one thousand parts of the potato, for instance, contains from 200 to 260 parts of nutritive matter, consisting mostly of starch with a small admixture of mucilage—from 15 to 20 of saccharine matter, and from 30 to 40 of gluten.

The common red beet contains, in 1000 parts, 150 parts of nutritive matter—i. e., 14 parts of starch, 121 of saccharine matter, and 13 or 14 of gluten.

Mangel wurtzel contains, in 1000 parts, 136 parts of alimentary matter, which is made up of 13 parts of starch, 119 saccharine matter, and 4 of gluten.

English turnips, in 1000 parts, contain 42 parts of nutritive matter, i. e., 7 of starch, and 34 of saccharine matter.

The ruta baga—the root sometimes denounced at this day with great virulence—contains in 1000 parts, 64 parts nutritive matter, consisting of 9 parts of starch, 51 saccharine matter and 2 of gluten. In 1000 parts, the parsnip affords 100 of nutritive matter, 10 of which are starch, and the residue saccharine substance.

The carrot, in 1000 parts, affords 98 of nutritive matter; 3 of which are starch and 95 of saccharine matter. There is also in addition to these, an extract which appears insoluble.

But these nutritive products are not the only valuable parts—the remainder of the vegetables is composed of fibrous substance which assists alimentation by communicating to the stomach the stimulus of distention, and by other means not yet fully ascertained.

Now let us examine clover. Of this *hay*, 1000 parts contain about 41 parts of alimentary, of which 32 are starch, 3 saccharine matter, 2 gluten, and 3 insoluble vegetable extract.

Of herds-grass (*Phleum Pratense*) we have no very reliable analyses, as yet. Some chemists set down the nutritive matter it contains at 100, others at 89, 90 and 97, in 1000 parts.

If we ascertain the number of tons of either of the above named roots, produced on an acre of any lesser extent of surface, with the cost of production, we may, by the assistance of the above table, decide with a tolerable degree of accuracy as to the specific value of each, compared with hay, or any other description of fodder. That a vastly greater amount of fodder may be obtained from an acre cultivated in roots than from a similar extent of surface in grass, is a point already too obvious to need any demonstration. The following from the *Newark Daily Advertiser* shows what may be expected, with proper care from the potato:—

"Mr. Joseph D. Coe raised from an ounce and a quarter of seed, 40 Rohan potatoes, weighing 18 lbs. which he tells us, after an accurate measurement of the ground occupied, is at the rate of 1440 bushels to the acre. He cut his seed into five tubers, and the produce is equal to 225 bushels of potatoes to one bushel of seed. The largest potato weighs about 2 pounds. The vine grew eleven feet three inches."

From the *Farmer and Gardener* we extract the following on "Horse Feed."

"There is no one who regards the comfort of domestic animals—those noble creatures which contribute so much to the comfort of every homestead, whether it be the splendid establishment of

the rich, or the more humble domicil of the poor, but must rejoice to learn that the *root culture* is gaining favor with most intelligent farmers. The advantages, indeed, which result from devoting a few acres to such purposes are so striking, and add so much to the profit and economy of every well conducted farm, that one wonders how intelligent agriculturists could so long have rejected the evidences which have so obviously presented themselves for consideration; and with a view of bringing these facts more immediately to view, we will freely state them.

"To begin, then, we will premise, that each working horse will consume three gallons of corn per day, (equal to that, without hay) or 1095 gallons per year. Now if we take thirty bushels as the average yield of an acre in corn, which is a large one, it will take four acres, sixty perches of ground to raise corn enough to sustain a single horse. On the other hand let us suppose that an acre in carrots will raise three hundred bushels, (and this is a small average, for seven hundred bushels have often been produced on an acre,) and as it has been ascertained that three pecks of this root are sufficient to sustain a horse well at labor, and as there are 12 hundred pecks in three hundred bushels, so will one acre sustain a horse one year and thirty-five days, making a saving of three acres and ninety perches of land, and nearly the equivalent of that amount of labor is tillage, as all will admit that if the carrots be *judiciously drilled*, the amount of labor to be performed on their culture is very little greater than what is requisite to secure a good yield of corn—one thinning and three hoeings being all that is necessary to ensure a good crop. As to manuring, we will observe that they do not require more than ought to be given to corn, as less than twenty loads should not be devoted to either. The gathering and preservation is, to be sure, more tedious per acre; but when the labor to be bestowed on four acres and ninety perches in corn, is compared with that requisite for one acre of carrots, we think the amount will stand decidedly in favor of the latter."

That the writer of the foregoing should have indulged the belief, as he seems to have done, that seven hundred bushels is to be regarded as the *maximum* yield of an acre cultivated *judiciously* in this root, is certainly deserving of surprise. A Mr. Little residing in Newbury, or Newburyport, in this State, some years since harvested twice that quantity—1400 from one acre, and in the reports of many of our agricultural societies, as well as those of Great Britain, it is seldom that any crop not exceeding seven hundred bushels is mentioned. The sugar beet, mangel wurtzel, and other popular root crops, often exceed one thousand. The latter are perhaps less expensive, so far as cultivation is concerned, than the carrot; but they are less nutritive, and are supposed to be more exhausting to the soil on which they grow. For neat stock, the parsnip is now highly esteemed by cattle breeders, both in this country and in Europe. Its yield is about equal to that of the carrot, and it requires about the same soil and treatment. It is an excellent feed for hogs, sheep, and other stock.

POTATOES—INTERESTING EXPERIMENT.

The Journal of the New York State Agricultural Society contains a very elaborate and carefully prepared table, showing the result of experiments in the cultivation of potatoes, in every possible mode, and under all the different circumstances which could well be conceived; the whole forming a mass of information seldom found condensed into so small a compass. It is from the pen of our friend H. H. Eastman, Esq., of Marshall, one of the best practical farmers in the State—a careful experimenter and exact observer of results. In this table Mr. E. has presented the result of his experiments with such exactness, and in so concise a form, as to be readily understood by the reader. We only regret that it is so formidable as to prevent its being laid before our readers in detail, especially as the rule and figure work in the table is very inconvenient for our columns. We may, however, as briefly as may be, state some of the results of the experiments, as gathered from a careful perusal of the table, hoping at some future time to present the matter in a more acceptable form.

1. Manures. The experiments embrace Hog manure, Fermented and Unfermented Yard Manure, Compost, Manure of Fowls, Lime, Ashes, Gypsum, Sulphur, Saltpetre, &c. &c. The results are decidedly favorable to the use of Hog manure the manure of Fowls coming next, the Compost next, then the Unfermented Manure. The Lime and Gypsum did not increase the yield beyond that part on which no manure was used. The same may be said of the Sulphur and Saltpetre.

2. Time of Planting. The earliest planting proved decidedly best—the difference between the 18th and 28th May being 19 bushels per acre, and a further reduction on that portion planted as late as 10th June of 34 bushels per acre, with a decided advantage as to size and quality in favor of those planted early.

3. Whole and Cut; and Large and Small Seed. Here the result proves precisely as we anticipated. The seed from large potatoes produced decidedly best. We will give the exact statement.

		Weight of Seed.	*Weight of Product.*	*Bushels pr acre.*
Large Potatoes whole,	One whole in a hill,	10 lbs. 6 oz.	71 lbs. 8 oz.	192
Large Potatoes halved,	Two halves in each hill,	10 lbs. 6 oz.	81 lbs.	217
Large Potatoes halved,	One-half in each hill,	5 lbs. 3 oz.	52 lbs.	139
Large Potatoes quartered,	4 quarters in each hill.	9 lbs.	58 lbs.	156

Thus far with reference to cut and uncut; those halved producing most when used in the same quantity, but a little smaller in size than the product from the whole seeds. The produce of the quartered seed was much smaller and inferior. The following is a pretty clear test between large and small seed.

	Weight of Seed.	*Weight of Product.*	*Bushels pr acre.*
Large, one whole in hill,	12 lbs. 4 oz.	80 lbs.	215
Medium, " "	6 lbs.	50 lbs. 8 oz.	135
Small, " "	3 lbs. 7 oz.	43 lbs. 8 oz.	117
Small, two whole in hill,	6 lbs. 14 oz.	51 lbs.	138
Small, four whole in hill,	9 lbs.	63 lbs.	167

The produce of small seed inferior and unmarketable.

A very clear demonstration, so far as our experiment goes, in favor of large seed, a result which

will, we doubt not, be generally reached in all experiments, with whatever crop, between perfect and imperfect seed. There are many other results to be drawn from this paper, which we should be glad to lay before our readers, could we conveniently do so. The public are under obligations to Mr. Eastman for this elaborate and accurate experiment, and we hope he may repeat it another season.—*New York Farmer.*

For the New England Farmer.

MANURES.

MESSRS. EDITORS :—In the *New England Farmer* for Feb. 9, which I received a few days ago, about ten days after time, I perceive a query by J. R. "If the manure, liquid and solid, produced by feeding on the 'estover of an acre' would not return to the ground, 'nearly the value it has given out,' of mineral matter?" And after the query, the writer says, "I suppose that mineral substances, as lime, silex, &c., are not digested in the stomach of the animal, and that only a small amount of them is taken into the circulation, but that they pass off in the dejections, and may thus *all* be returned to the soil, and the estover be used at the same time as food for the stock."

It was so manifest to me that your querist is an expert in the animal physiology, of which I have little knowledge, and that his query was not proposed as seeking information, but as a modest mode of conveying instruction, that I did not design to make an answer, which evidently was not desired by him. But on reflection, I have thought that if J. R. would state more fully his views in the matter, in doing so he would not only correct my erroneous idea, but would probably be giving valuable instruction to other of your readers, and therefore conclude to answer the query, by stating what my view was. I take the succeeding clause above quoted, as a part of the proposition implied in the query, which is, that the dejections of the cow produced by or resulting from the feeding of a corn stalk will impart as much mineral matter to the soil as the corn stalk itself would have done.

My answer is that I certainly did not, by any means, suppose this to be the case. I considered that when the cow had laid in her bone and milk from the lime of the corn-stalk that it would be sensibly diminished, and that the amount passed off in the dejections would be much less than the portion taken into the stomach in the corn stalk. Further, I supposed also that a considerable portion of the salts taken into the stomach with the food, passed off in the perspirations of the animal, while still another portion was deposited in the blood and flesh. And further, I supposed that some portion of what passed off in the dejections would be dissolved and lost in the barn-yard, passing into the earth there, or into the atmosphere. By these multiplied means of abstractions, I considered that much the largest portion of the *mineral* matters would be lost, and that the stable *matter*, (the word was correctly printed as it was written, and written as designed) produced from a corn stalk fed to a cow would return to the ground but a small part of the *mineral* matters which were contained in the stalk itself.

But you will please remind J. R. that the phrase *mineral* matters was not used in the "Fireside Talk." It was said "the ground receives back nearly the same value it has given out, and I think more, in amount of *fertilizing* matter, than in a cord of stable matter." My idea was this. That a large portion, say seven or eight tenth parts of the corn-stalk, consists of carbon and oxygen, which by the decay of the stalk in the earth would be set free and deposited in the earth in form of carbonic acid, the great thing necessary for the plant; that another considerable portion consisting of hydrogen and nitrogen, would in the same manner impart ammonia to the soil, both of which it had taken up partly from the soil, (or would,) and partly from the atmosphere. That the first of these would be principally, if not wholly, and the last partially lost in passing the stalk through the cow. That the mineral matters constituted only from one to two tenth parts of the stalk, and that the greatest part of that would be lost, as above explained.

I have stated my ideas exactly and definitely, in order that not only myself, but the public may have the benefit of the correction of your correspondent J. R. in full in relation to this matter, and that my error may be wholly rectified.

It seems to me that my farm must become to me a mine of wealth, if I can pass the crop through the cattle, and after that, from the dejections, return even *all* the mineral matter taken from it; but I desire also to know more exactly how this is with all the remaining ingredients of the corn-stalk, if any there are. B.

BITS OF THOUGHT.

To raise good cattle, a farm should be in such a state that it would produce good corn, good cabbages, or good clover.

An increase of farm products lessens the market price, and the consumer is more benefited than the producer. Therefore the encouragement of agriculture is the interest of the whole people. It is the first duty of States to encourage agricultural improvement.

The brightness of the plow-share will prove a better security to our republican institutions than all the windy patriotism of long speeches in Congress.

He who encourages young men in the pursuit of agriculture is doing a good work for the morals of society a hundred years hence.

The lady who treats the husbandman with scorn, because he is a farmer, contributes something towards increasing the number of candidates for the State prison and the gallows.

All the true honor or happiness there is in this world follows labor. Were it not for working-men, there could be no progress in either science or art. Working-men are earth's true nobility. Those who live without work are all paupers.

For the community to honor one who spends life in genteel idleness, is like dressing a hog in silk stockings.

Mirth and vanity are known like a bottle of beer; but wisdom and virtue by their abundant products for lasting good. It is not the most show that does the most service. Still water often runs deep. A. G. C.

—*Granite Farmer.*

LEGISLATIVE AGRICULTURAL MEETINGS.

SEVENTH MEETING—TUESDAY EVENING, MARCH. 1, 1853.

The seventh meeting of the season was held at the State House on Tuesday evening. The meeting was called to order by Mr. FRENCH, of Braintree, and JOHN C. GRAY, of Boston, was called to the chair.

The subject for discussion was "*The Cultivation and Preservation of Fruit Trees.*"

Mr. GRAY, upon taking the chair, submitted some excellent practical remarks in regard to the cultivation of fruits. The plum, he said, was very difficult to raise good crops of, from year to year, and they are very subject to the ravages of the curculio. In respect to *warts upon plum trees*, he said it had been recommended as the best method to get rid of them, to cut them off in the early stages of their development, and rub the wound with salt.

In the cultivation of peach trees, pruning is absolutely necessary. The last year's growth of bearing branches, which may be known by a red color, should be cut down one-half to two-thirds, and the whole tree should be kept down. It is subject to a borer distinct from the apple borer, an effectual remedy for which is to dig around the tree in March and put in unleached ashes. They should be planted twenty feet apart, and a large portion of the fruit should be removed. Two men can remove the surplus fruit and search for borers, at the rate of sixty trees per day. As a remedy for the curling of the leaves, cutting them off was recommended; the leaves will put out a new set which will be exempt from this defect. The soil should not be over rich—such as would be rather poor for apples—and cultivating vegetables in the orchard is found to be of great advantage.

Prof. NASH, of Amherst College, said he had noticed two years ago that some peach trees which stood in clusters, bore bountifully, while trees which were isolated produced scarcely any. He desired to know the reason for this.

Major WHEELER, of Framingham, said it was owing to the location of the trees, and not in their being placed in clusters. Peaches will not flourish in cold, low lands, but require warm soils, which are found only upon elevated situations. In his opinion, we have as favorable a climate as any in the country for peaches. He had lately visited New Jersey, and from the information gathered there, he was convinced that our climate was more favorable, in some respects, than that enjoyed there. In New Jersey, owing to the earliness of the season, they are subject to frosts after the fruit is set,—a thing which seldom occurs among us. The highest hills are the best for peaches, from being warmest. He knew of some hills in Framingham where crops had not failed for thirty years. He considered success certain, if peaches were cultivated on elevated land. It is important, too, to remove a large portion of the blossoms, as a tree brings forth six times as many blows as can come to maturity. To kill the borer, he used ley, and did not believe it would injure the trees in the least. He had, for experiment, used two pounds of potash to a gallon of water, and discovered not the least injury in applying it to young trees in his nursery. Nothing he considered so effective for destroying the borer. Generally puts two pounds of potash into nine or ten quarts of water, which he thought strong enough.

In setting out trees, his rule was to dig a hole six feet over and two deep, pulverizing the soil well, and putting the best at the bottom, and then plowing the ground with a subsoil plow. He never "mulched" his trees. If the ground is well pulverized and cultivated through the summer, there is no danger of the trees suffering from drought.

In regard to trimming trees, it is very important that the apple should be well trimmed. He trimmed his trees to the shape of an inverted umbrella.

Mr. ADAMS, of Newbury, remarked that a great many trees were ruined from a want of care in taking them from the nursery. The roots should be taken up as whole as possible, and a spade should never be used if it can be dispensed with. His method was for one or two to take hold of a tree and *pull* it up. Every root of any size should be cut off where broken with a sharp knife. Dig the hole six inches larger than the roots spread, and set the tree so that when the ground settles the trees may stand as they did in the nursery. If the land is in a good state, no manure is necessary, but the soil should be well pulverized, the roots placed in a natural position, sifting the soil in around the roots and fibres, and the earth left free and loose about the tree, without being trodden. He had set a large number of trees in this manner, and on comparing them with those which remained in the nursery, could not perceive that they had been checked the least in their growth; the land, however, was in a little better condition than the nursery land. The soil was a gravelly loam. If orchard land is tilled there is no danger from drought. Orchards need as much care as green-houses. He should plant his trees twenty-five feet apart.

In regard to trimming, he thought that a young orchard needed looking after every year, and some limbs taken out. They grow too thick, and require strict attention to shape them before they get too large. Many are in the habit of using saws in pruning their trees, and leaving the end of the limb rough, which should be trimmed smooth with a knife, and then it will heal over.

The speaker also made some remarks in relation to the running out of fruit, the reclamation of old

orchards, &c. He contended that fruits would run out, and in proof cited a case which had come under his observation. The fruit of young trees grafted from the old ones had the same defects that the fruit from the old trees had.

He thought old orchards might be brought into a state to last for a number of years, if taken in hand in season.

In keeping fruit, Mr. ADAMS said his plan was to place his apples on shelves furnished with slats to retain the apples and admit the passage of the air through them, and then open his cellar door and allow the cold air to rush in upon them. By this means his apples were kept until April, in as good condition as when put in in the fall—sound, bright, and of good flavor, though perhaps a little shrunk. Apples should be kept very cool. He considered Baldwin apples the most profitable crop which the farmer could raise.

Mr. FRENCH, of Braintree, said it was known that fruits had their years of sickness and depreciation. We know that the buttonwood has been dying out for ten years; but this year we find buttons growing on the trees, and young buttonwoods growing up. We have undoubted evidence that the "Pomme Appi" apple has been in existence for a century and a half, and he had no tree on his farm that was so hardy and bore so well. There are springing up before us, every day, new varieties of fruit, and the only difficulty is to know what we shall do with them all. In Philadelphia, lately, he was shown more than forty new varieties of apples, and all of them desirable. We do not want more than thirty varieties.

Mr. BROWN, of the *N. E. Farmer*, said he had no doubt we should always have plenty of new varieties, and described one variety of apple which had its origin in the town of Concord, and is principally confined to that locality, where it is extensively cultivated. It is called the HUNT RUSSET; he had seen some of them which were two years old, still juicy, fair, and retaining their flavor.

In regard to the time for trimming trees, it was his opinion that it should not be done while the sap was in full flow. He considered the practice which extends throughout New England of pruning trees in March and April to be destructive to them. If the limbs are severed while the sap is ascending, it will continue to flow and run down the limb and trunk of the tree, forming a discolored line, which can readily be seen on noticing a tree thus treated. This sap, which is sweet at first, on exposure to the atmosphere, becomes extremely acrid and bitter, and acts as a poison upon the tree, eventually destroyng it, as it flows out from the limb with every returning flow of the sap. Trees should either be trimmed when the sap is *not* in motion, or when they are full of young foliage, which will divert the sap from the wound to the leaves, and give it an opportunity of healing over.

Trees can be trimmed in midsummer without injury, or in the autumn, when in repose. If trimmed when the sap is not in flow, a green, smooth bark grows about the edges, and the wound heals up much better than if cut in any of the months when the upward current of the sap is free. It is the running sap that prevents the healing process. He also cited the practice of eminent horticulturists to sustain his views.

Mr. ADAMS, of Newbury, agreed with Mr. BROWN's views as to the proper time for trimming trees.

Mr. WHEELER, of Framingham, considered the matter very important. His experience had convinced him that the best time for pruning was when the sap was not in full flow.

Prof. NASH, detailed a plan for preserving apples. In the fall, place them in the garret, (the cooler the room the better) enveloped in fine sawdust, about a bushel and a half to a barrel, and a little apart from each other and the barrel. They will not freeze, thus protected, in the severest winter, and fruit which will not generally keep beyond January, will keep in good condition until April.

The hour of nine having arrived, the meeting adjourned.

NOTE.—The reports of agricultural discussions at the State House, give opinions for which we feel no sort of responsibility. This is also the case with communications which we publish. Many of them contain doctrines which we could not endorse; but we consider it fair that gentlemen shall have a hearing, and have no fears but their opinions, as well as our own, will be taken for all they are worth.

For the New England Farmer.

COMPARATIVE MERITS

OF THE TALL AND LATE AND THE SHORT AND EARLY KINDS OF CORN.

Our farmers hereabouts plant much of the tall growing variety of corn, which is often materially injured by the early frosts, and their reason for preferring it is, that the ear is larger, and they get a much larger yield to the acre (*provided* the frost does not destroy half the crop.) The low growing variety of corn, if planted the last of May or first of June, ripens earlier, escapes the frost, and although the ear is smaller, gives a sure crop. I wish to know if an equal number of bushels of the small and early variety may not be produced to the acre by planting the rows of the low and early variety nearer together than the usual three feet apart distance of the tall kind. (*a.*) The low growing corn probably does not extend its roots to such a distance as the taller corn. But our farmers say if the rows are nearer than three feet, the passage of the horse and whiffletree with the cultivator, will destroy by breaking down a large amount. But is it not bad policy to pass with the cultivator when the corn is high enough to be broken down, on account of injury to the roots?

(*b.*) Or at least, is it not better to use the hoe, than the cultivator, at such a stage of the growth, if thereby we can place six rows of short corn where otherwise we must have but four? I planted the last season an half-acre with the low growing variety. My men had planted the first three rows, each three feet apart, contrary to my intentions. The remainder was planted in rows two feet apart. The yield was 98 bushels (in the ear;) 16 of which were pig corn and 82 good sound corn. L. S. H.

Northampton, March 1, 1853.

REMARKS.—(*a.*) We have known some of the largest and best crops of corn from the eight rowed Canada kind. (*b.*) The cultivator can scarcely be used too freely in the early stages of the corn plants; but when it has grown tall enough to be broken down in cultivating, the roots must have formed a net work over nearly the whole ground. Cultivating, then, cannot be beneficial.

For the New England Farmer.

INFLUENCE OF NEWSPAPERS.

MESSRS. EDITORS:—Newspapers wield an influence which controls nations, not by brutal force, not by the din and smoke of war, nor the arbitrary mandates of a despot, but by a still, impulsive power, which permeates the mind for good or for evil; they exert as great if not greater influence over the public mind than all the orators of the professions as moral or immoral agents. Newspapers conducted by good, well-informed, high-minded editors, will disseminate, in the public at large, as much useful knowledge and as much moral principle, I believe, as our schools and colleges. We can all discern the difference between those who read the productions of good liberal minded editors, and those who read scurrilous party papers, by their elevated conversation. A bigoted editor will propagate bigotry, a vicious one vice, a demagogue deception, an infidel skepticism, and the libertine will propagate licentiousness, and so on to the end of the catalogue of influences. There is no necessity of party individuals being bigots; charity covers a multitude of faults; "we may agree to differ" in a gentlemanlike manner, without those rancorous, uncharitable feelings, which add nothing to the items which constitute happiness, but rather infringe upon the good rules of Christianity.

In a community where there are individuals who will traffic away their own souls and the souls of others for lucre, we have reason to fear the worst of consequences from the circulation of licentious, immoral and youth-corrupting newspapers. There are no kind of wicked propensities in man but what can be accommodated with a creed from an unprincipled editor whose influence, Bohon Upas-like, poisons all who venture within its atmosphere, and whose only idea is to get money without regard to means or consequences.

Farmers and mechanics are daily reaping benefits from the instructions which they get from reading newspapers conducted by good, scientific, and judicious editors. But few, comparatively, would know the improvements which are yearly taking place in agriculture and the mechanical arts, were it not for this channel of conveyance. Many a man gains knowledge from a source, unconscious from whence he derived it, and of course is unable to render "honor to whom honor is due." Some of the editors of our political papers, in their party zeal, make an impression upon the minds of some of those who read them, not at all favorable to the prevalence of brotherly love in the community. The mischievous effects of persecution for honest political opinions, are felt in every neighborhood; if the authors of these offences are not rewarded sooner or later, justice must have strayed away from home.

Intelligence seems to spread and enlighten the people in a nation in proportion to the freedom which is allowed by government to the circulation of the thoughts and opinions of each other by newspapers; look at the laboring classes in despotic Europe, where a paper is not permitted to circulate without passing the censorship of a government tool, and see the difference between them and those living under the liberal governments of England, the United States, and all other liberal governments. Under despotic rule, ignorance is the huge chain which binds the people to servitude; when that chain is once sundered the despots tremble in their shoes for consequences; there is no chain strong enough to bind a virtuous and intelligent people. Let farmers, mechanics and all people who are dependent upon their wits and hands consider well their situation and responsibilities, and let them discourage vitiating publications from entering their doors, to do more toward corrupting youth than all the clergy in the community can counteract.

The impressions made on the minds of youth are enduring and hard to eradicate, whether the impressions are made by reading contaminating publications or associating with filthy brained rowdy companions; many a parent has found to his sorrow that as the "twig was bent the tree was inclined," while making a desperate attempt to reclaim an incorrigible son, that had been neglected while young, without success.

In making a selection of newspapers, the man who would "train up a child in the way he should go" will see the importance of selecting those which will have a tendency to exalt and purify the mind, instead of corrupting and debasing it by sowing the seeds of pollution broad cast in the public, to bring forth their fruits by producing a generation of ill-bred juveniles, qualified to enter the ranks of street rowdies and public plunderers, rather than gladden the hearts of their parents and prove useful members of society.

SILAS BROWN.

Wilmington, 1853.

U. S. AGRICULTURAL SOCIETY.—We understand that the people of the State, and particularly of this vicinity, are taking strong hold of this national association. Numerous subscriptions of $25, which constitutes a life-membership, have recently been made, and among those of a still broader liberality, there is a subscription of $500, from the Hon. JONATHAN PHILLIPS, of Boston. In all this we think we can see the untiring activity of the honored President of the society. We consider the institution as now established on a permanent basis; and that if its members imitate the

zeal of its head, and harmony shall prevail in its councils, it will be the means of shedding untold blessings upon the nation and world.

BONES FOR MANURE.

To A. S., *South Freedom, Me.*—"Where can I get sulphuric acid to dissolve bones? (*a.*) What is the price? (*b.*) What quantity is needed in proportion to the bones to be dissolved? (*c.*) Do you think it would be profitable to purchase acid to dissolve all the bones I can get?" (*d.*)

Remarks.—(*a.*) You can procure sulphuric acid in any quantity at the drug store of Charles H. Badger & Co., 47 and 49 Blackstone Street, Boston.

(*b.*) By the carboy, containing 150 to 200 gallons, 2¼ cts. a pound; it weighs about 16 lbs. to the gallon. In small quantities it would come a little higher.

(*c.*) Get a box made, say 6 feet long by 2 feet high and two or three wide, dove-tailed and jointed with white lead. Put in the water first; then the sulphuric acid, allowing one-half *more bulk* of water than acid, and one-half *less weight* of acid than bones; that is, to a gallon of acid, allow a gallon and a half of water; and to 100 pounds of bones, allow 50 lbs. of acid. Then add the bones finely broken up, and mix the whole intimately and *equally*. Cover the box with a lid or old sacks, and let it stand, *untouched*, 48 hours.

This method of dissolving bones is given in the Transactions of the Highland and Agricultural Society of Scotland, for 1851, and is the simplest and easiest with which we are acquainted. It is recommended by some that when the dissolving process has been gone through with, that the mass be thoroughly mixed with dry ashes before being applied to the soil.

(*d.*) We do—because the bones are exceedingly valuable, and the acid is also a fertilizer in itself. But make careful and exact experiments, in a small way, to begin with, and tell us the results of your experience.

While speaking of this subject, it may be proper to add that sulphuric acid is invaluable for many purposes, and is coming into common use, particularly among English farmers. It used to cost some seven or eight cents a pound, but since the introduction of platinum receivers, in which it is manufactured, a great reduction in price has been effected, notwithstanding these receivers cost about $5,000 each. The production of crops removes the phosphate of lime from the soil—bones dissolved in sulphuric acid produce this phosphate, and the phosphoric acid so produced has been brought to bear upon the land with most beneficial effects. Professor Liebig gives it as his opinion, that the commercial prosperity of a country may be estimated by the quantities of sulphuric acid it consumes; and Mr. Pusey, M. P., declared in a lecture on it, that he considers it no inadequate criterion of the degree of civilization. However, that is pretty much like many other things introduced. There is scarcely a greater indication of a high degree of civilization than the immense quantities of *cotton cloth* used in the country,—and certainly, no one thing adds more to the comfort of our people. In *Wiley and Putnam's* edition of *Liebig*, page 184, it is remarked that Ingenhouss proposed dilute sulphuric as a means of increasing the fertility of the soil. This is mentioned to give force to our reply, above, under letter (*d.*)

Sulphuric acid comes from sulphur and oxygen, one part or atom of the former, and three parts or atoms of the latter. It may also be obtained in a solid and dry state. Stockhardt says that what iron is to the machinist, sulphuric acid is to the chemist, and that it stands, as it were, the Hercules among the acids, and by it we are able to overpower all others, and expel them from their combinations.

THE PICTORIAL FIELD-BOOK.

This rich quarry of historic wealth is now in completed state, accessible to every American, and certainly every American should dig in its ample mines. Mr. Lossing has come to the rescue at the right period. Ten years more and it would have been too late. Every year or month was sweeping away some tenement around which gathered revolutionary associations, some ancient record or furrowed face, and which soon would have been lost forever to the world, but which are now securely embalmed by the pen and pencil of this artist-author. Our countrymen were so absorbed in the present, that they were forgetting the past. Progress was striding over our ancient battlefields, regardless of the bones that bleached beneath her feet. Agriculture drove her remorseless coulter through the mossy ramparts that once sheltered the gallant heroes of our liberty. The time-honored structures that kept off the dew and the rain from many a patriot head, were tumbling indiscriminately before the blows of that improvement, which would destroy an association as ruthlessly as it would crush a weed. The mound, the wall, the ditch, that had witnessed the intensest suffering, the bravest endeavor, the most heroic defences and assaults, over which the whistling balls had cut the air, and almost yet echoing with the clang of battle and the shouts of victory, were yielding to friendly strokes what they refused to hostile arms, and surrendering their ancient forms to the desecrating plow. Why should they longer remain to remind a people of the struggles their freedom had cost? Wheat would not grow in the ditch, nor corn spring out of the wall. And in a country so crowded for room, hitting its elbows against the oceans as it turned round on its narrow base of sixty degrees of latitude, it could not afford to let an old tree stand, though its rough bark held the testimony of a terrible conflict, nor permit the remnants of a venerable fortification to mark to the eye of posterity some spot hallowed with patriot blood. Rapidly, rapidly were these glorious mementoes disappearing before the utili-

tarian spirit of the age, and oblivion would soon have rolled her waters over them all. But the time so often gives what its necessities require. A historian of a new stamp appears as he is wanted; not confining himself within the four walls of a library, nor satisfied with collating, in new forms, the researches of others, he sallies forth to a personal inspection of every scene of revolutionary interest, he searches out the hoary actors that yet remain; he follows their tottering steps over fields of slaughter; sketches the physical features that were connected with the contest; and as his pen takes the narration from the trembling lips of these venerable partakers and witnesses, and transcribes their mouldy documents, his faithful and ready pencil transfers their features and figures to the enduring page. Thus we have fac-similes of the autographs of Washington and Jefferson, of Columbus and Cotton Mather, of Uncas and Brant, of Burgoyne and Gates, of Arnold and Andre, and of most of those stern men whose shoulders upheld the ark of our liberty. Thus, too, their lineaments look out from these life-like pages, and even the deep wrinkles that a century had worn in the cheeks of old John Battin, and the frosts that time had sprinkled on his locks, revealed the truthfulness of the artist's skill. The benignant features of Pocahontas beam with affection, and the countenance of Kosciusco and Lafayette, of Montgomery and Putnam, Stark, Wayne, Mercer, Marion, Sumpter, and a host of others equally worthy of preservation, show the reader what cast of men led our armies to victory in the heroic days of the republic. Accurate maps of battle-fields, the monuments that gratitude has erected to the memory of our heroes, the habitations that were the scenes of stirring interest, are here truthfully depicted.

But for this, all would soon become vague; important localities, intangible; indefiniteness would conceal our consecrated places, and the roads encrimsoned by the bleeding feet of our warriors—their long marches and frosty bivouacs—would in many instances, become indistinct and legendary. Dates and localities are the eyes of history, through which its truths are made manifest and steadfast. As we read these clear and beautiful pages, we feel a sentiment of nationality glow in our veins, and look with honest pride upon those inflexible, upright physiognomies, and with melancholy interest upon those quaint old specimens of architecture that held the living, and upon those tombstones that protect and mark the sleeping-places of the illustrious dead. Our author does not believe that the antiquarian spirit should be devoted only to unfolding the mysterious ciphers that decorate the sarcophagus of an Egyptian princess, but he would seize those hieroglyphics of our past—these frail memorials, so swiftly crumbling into dust, and enshrine them on his ample leaves—the record, the evidence, and the illustration of a great and triumphant struggle.

Accordingly we see our historic pilgrim traversing and re-traversing the broad field of the revolution—touching at every memorable place—in trackless forest—amid mountain ridges—over fruitful plains—pursuing the devious windings of rivers—in thronging cities tracing the revolutionary relics, around which the multitude heedlessly tramped—in solitary walks hunting the footprints of our armies—suddenly performing some distant journey to save the impress of a fort or building about to be defaced by sacriligious hands, following wherever the progress of American story beckoned him—till, compassing more than eight thousand miles, and transferring from fading reality to perpetual forms, many hundred cherished scenes and portraits, he consummates his interesting narrative of more than fourteen hundred large and compact pages, and gives the invaluable contribution to the descendants of those whose deeds he thus nobly commemorates and preserves.

These volumes are, hereafter, to perform an important part in educating the people in the details of American history. Certainly no work is so well calculated to lure the minds of the young through the different stages of the great drama of our independence. Uniting the two attractions of engaging narrative and pictorial representation, it interests the reader in a double sense, and will tend, we do not doubt, to imbue the generation now rising to manliness, with a deeper and fuller knowledge than it would else have had, of the labors, hardships, dangers and triumphs of the first sons of the republic.

In the modesty of his preface, the author regrets that others, more competent, had not gone forth to this undertaking. But he is the competent man who does the work; and surely no one could have accomplished it with greater fidelity, truthfulness or skill, infued more freshness and vivacity into the current of his narrative, or poured out the enthusiastic devotion of a more thoroughly American heart. It was a task that indifference could not achieve. It required not merely the determination to write a book, but also the promptings of an ardent desire, a burning love of country, familiarity with her history, and an irresistible impulse to gather and preserve whatever might be the subject to demolition or decay of all those things that could throw light upon, or that became memorable in the progress of this country from dependence to freedom. The patriotism that thus sacredly collects, guards and perpetuates the proof of American valor, is of the stamp that would perform deeds, themselves worthy of record, when the time requires.—*N. Y. Daily Times.*

TREATISE ON MILCH COWS.

Some years ago a book on the subject of milch cows appeared among us, written by a Frenchman by the name of Guenon. It was translated, we think, by Mr. Skinner, late editor of the *Plow, Loom and Anvil.* This book proclaimed a theory which was then new to most of us, and to which Mr. Skinner assented. The theory briefly is this: that

"The hair of the horned cattle, as is well known, grows downwards, only in the milk mirror which begins at the udder, the down-like, delicate, short and *lighter*-colored hair grows upwards; and where the ascending and descending hair meet, they *form an elevated stripe, a vortex or whirl.* This whirl is the real frame or border of the milk-mirror, and gives it its shape. *This shape is the principal mark of the productiveness of the cow.* One shape shows a greater productiveness of milk than another."

The work has recently been examined and compiled in a condensed form by John Nefflin, a

German farmer, who has had many opportunities of developing the nature and character of Guenon's observations. Prof. WILKINSON, late of the Mount Airy Institute, says he is satisfied that this is the only reliable system by which cows can be selected. The circular of the publisher states that a thorough understanding of the system, will enable the farmer or dairyman to determine ☞ not only the daily quantity of milk a cow will yield, but how long this yield will continue. Again, it is susceptible of application to calves of three months old, so that the breeder can determine, even at that early age, which promise to become good milkers, and which do not. And again, as the marks can be discerned in bull calves as well as in cows, the important information is secured to the farmer, which enables him to couple such male and female animals, as belong to the same class, and thus increase their productiveness for the dairy, to the utmost possible extent. The breeder, by a proper application of the rules, may so improve the character of his stock, as to double its value. ☜

The work is printed handsomely, with a large plate illustrating the principles laid down. Price 30 cents a copy, or 50 cents each for bound copies. Published by C. B. ROGERS, 29 Market Street, Philadelphia. Circulars describing the work will be handed to persons calling for them at this office. We believe the matter worth attending to.

For the New England Farmer.

DUNGING IN THE HILL.

Dunging corn in the hill appears to me an injudicious method of applying manure, even when the quantity is small. It gives to the plant a luxuriant start, provided the manure is rotted, but too often proves of little value afterwards. The small fibres of the roots are the mouths of the plants through which the food passes to the stock. If we examine the roots of corn we shall perceive that they extend as far in the ground as the stocks do above. Hence it will be perceived that the dung, if placed in the hill, cannot benefit the roots nor materially the plant, after they have extended beyond the circle where it is deposited. Whereas, if it is spread and buried in the soil, it benefits them in their whole extent; there probably not being a square foot of ground in the field into which the roots do not penetrate in search of food. And for the next crop, it benefits only parts of the soil where the corn has grown. I have noticed that in the next crop, which is usually wheat in this section, I can see where the rows of corn were last year; therefore I think it would be better to spread this manure and plow it in.

If we wish to give corn a luxuriant start, we can make some kind of compost to use in the hill. It is stated that phosphate of lime, or bone dust, will furnish the necessary elements of the whole plant without the aid of much if any other manure.

And now, friend Brown, I want to know if gypsum or plaster, saturated in urine, dried, pulverized, and put in with the corn in the hill, would be any benefit, or would it kill the corn?

Last year I used hen manure mixed with plaster, by putting it in with the corn, but found that it hurt the corn, as it did not come up well. This year I intend to make the same mixture, and apply it after the corn is up.

Your friend, B. T. CONANT.

Lyme, N. H.

REMARKS.—The bone dust will not be a sufficient manuring in itself. Your saturated plaster will be excellent in the hill, intimately mingled with soil before dropping the corn.

For the New England Farmer.

AGRICULTURAL PREMIUMS.

The question, I notice, is asked, whether the present system of disbursing premiums may not be improved. I have often thought it questionable policy to confine premiums to *successful* experiments or results. Is it not as important to avoid the evil, as to pursue the good, in all departments of life? Light-houses are built on dangerous points. Charts point out the rocks on which vessels have foundered, as well as the deep water, where they may ride in safety—the shoals and quick-sands, as well as the harbors. The historian would ill perform his task who should dwell upon the causes of national prosperity, and omit all notice of those which brought about its decline and ruin. To the prudent man, the knowledge and study of the means of success are scarcely more important than those of failure.

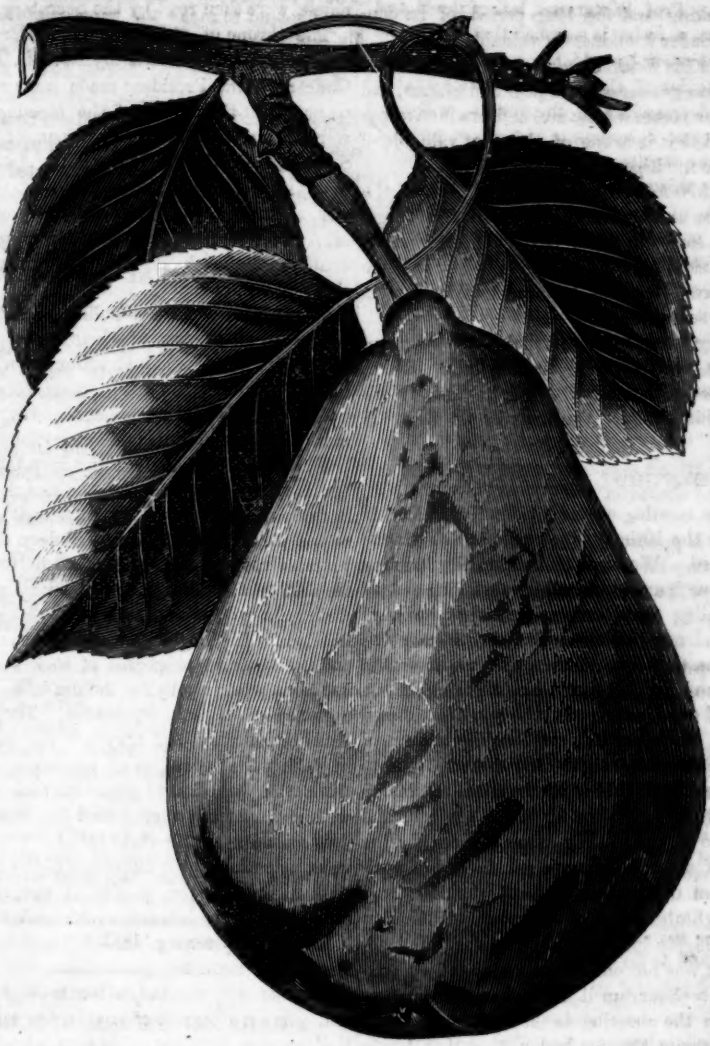
In former numbers of the *Farmer*, accounts of great success in raising and selling milk, by farmers near Boston, have been published—accounts representing men as realizing $100 a year from each cow. Lately a Mr. Marsh, of Cambridge, is reported as having stated in the "Convention of Milkmen and Farmers," that "In four years he lost in the milk business $1000." Would not a premium to Mr. Marsh, not exactly for his failure, but for a detailed statement of the whys and the wherefores of the result, be a good investment? I think so, and have said thus much by way of suggestion to those who manage premiums.

Winchester, February, 1853. S. F.

For the New England Farmer.

PEARS ON THORN STOCKS.

The present system of dwarfing fruit trees, which is said to be applicable to the pear as well as to other varieties of cultivated fruits, removes, in a great measure, the objections urged against the thorn, by nurserymen. It has generally been asserted, and no doubt truly, that while the scion of the pear does remarkably well, and makes a rapid growth on the thorn, the latter is not large enough to secure a good sized and healthy tree. But in dwarfing, the size is a secondary consideration. Very productive trees are obtained by this method, and they are very generally preferred in consequence of their being less liable to injury from winds, more easily managed, and requiring far less ground. Thorn stocks, also, are easily obtained, whereas quince stocks and pear stocks are expensive, and obtained only with difficulty, and from a distance, of those who grow them for sale, and an exorbitant price. H. D. W.



VICAR OF WINKFIELD.

The pear of which the above engraving is a portrait, grew in the grounds of Col. WILDER, of Dorchester, and was presented us for the especial purpose to which we have devoted it. Downing's account of it is, that it was discovered as a natural seedling in the woods of Clion, France, by a French *curate*, whence it obtained the name of *Le Cure*, or *Monsieur le Cure*. It was afterward imported into England by the Rev. Mr. Rham, of Winkfield, and cultivated and disseminated from thence, becoming known in the neighborhood of London as the *Vicar of Winkfield*. It is called, therefore, in the books by each of the three names which are given in italics. And by Kenrick, it is called *Clion*, after the name of the place in which it was found growing wild.

Different cultivators accord to it different merits. Mr. Downing says that with him it was always large, fair and handsome, and a first rate baking pear; occasionally fine as a table pear, but generally astringent and only third rate for this purpose. Its great productiveness, hardiness, and fine size, will always give it a prominent place in the orchard as a profitable, market, cooking pear. The tree grows thriftily, with drooping fruit branches. Shoots diverging, dark olive.

THOMAS, in his *Fruit Culturist*, speaks well of

it; says it ripens late autumn and early winter, for about three months, and is *fine on quince stocks*. Its neat and uniform productiveness, its fine qualities for cooking, and the long period of its continuance, render it eminently valuable.

Barry, in his *Fruit Garden*, says the tree is a most vigorous grower on both pear and quince, and on the latter makes a beautiful and productive pyramid; and that it is one of the most valuable of all late pears. Ripens well in the cellar.

Cole, in his *Fruit Book*, says, as it is hardy, a great grower and enormous bearer, the fruit large, fair, and it comes in when pears are scarce, it is one of the most profitable for the market or home consumption. Requires a warm location, and a long warm season.

Very large, long pyriform; pale yellow-brown, full in the sun; stem 1¼ inches long, slender, obliquely set without cavity; slight basin; flesh greenish white, juicy. Excellent for cooking.

AGRICULTURAL MASS MEETING.

The mass meeting of the farmers of Middlesex came off on the 10th, to the entire satisfaction of all concerned. We went to bed on the evening of the 9th, with a cold, drizzling rain falling around us, and feeling that our prospect for the next day was dark and dubious. But Providence was better to us than our fears. The morning sun rose fair and bright, and his cheering beams warmed all our hearts. At the appointed hour, the active, stout-hearted and intelligent farmers of Concord and the neighboring towns began to assemble, and took hold of the business of the day as though they had come for a day's work, and meant to do it, too. They were cheered by the presence of several distinguished friends of agriculture from different sections of the State and from other States. All the services of the day were of a highly interesting character. Indeed, the interest was not only sustained, but increased from hour to hour, until 10 o'clock in the evening, when the meeting broke up, amidst the universal regrets that we had not another day to spend in the same way. Not an unpleasant circumstance occurred to mar the pleasure of the day. Universal good feeling prevailed. We had a good dinner and it is not enough to say that we had a pleasant time. We had a *good* time—a *grand* time. It was a proud day for the Concord farmers and a proud day for old Concord. And we trust that many of the towns in our State will have just such a time this very spring, and every spring for years to come, and when they do, "may we be there to see."

The meeting was called to order by Elijah Wood, Jr., Esq., and organized by the choice of Simon Brown, President; Maj. B. Wheeler, Framingham, and Col. Heard, of Wayland, Vice Presidents, and Dr. Jos. Reynolds, Secretary. The doings of the Concord Farmers' Club, at their two last meetings in which this Convention originated, were then read by the Secretary.

The throne of grace was then addressed in a very appropriate manner by Rev. L. Angier, of Concord. The President made some remarks explanatory of the objects of the meeting. Letters were then read from A. W. Dodge, of Essex, W. S. King, of Providence, Editor of the *Journal of Agriculture*, Prof. J. G. Hoyt, and J. T. Gilman, Exeter, and from C. L. Flint, Secretary of the Board of Agriculture, expressing their regret at being unable to be with us, and giving us words of cheering and encouragement.

The subject of farm buildings was then taken up. Wm. D. Brown, of Concord, read an essay full of wit, humor and instruction, in which he described minutely the size, construction and arrangements of Farmer Goodman's barn. The essay was full of useful hints and suggestions.

The subject of neat stock was then taken up, and occupied the remainder of the morning session. Seth Sprague, of Duxbury, President of the Plymouth County Agricultural Society, made some very interesting statements upon this subject. He said that a great difficulty with us is that if we have a good animal, we are not sure of getting another. The English farmers regard the milking and flesh-gaining properties of their stock. They use horses principally for the draft, so that working oxen are of less importance. They have succeeded admirably, and they are certain of success in getting the kind of stock they desire. Our native cattle have mixed blood in their veins, and we know not how to cross and mix them.

We need to purify their blood. We must pay great attention to the character of the males if we wish to improve the quality of our stock. We must have pure-blooded males. A stain in the blood from any strong-blooded, vigorous race, will shew itself for many generations, and oftentimes will be strongly marked, after its origin is forgotten. As an illustration of this, he said that the Galloways or hornless cattle were introduced many years ago into this country, and now we occasionally find a no-horned animal in our herds, when its parents, grand-parents and great-grand-parents all had horns. Mr. S. thinks the Durhams the best for milk and beef, where the feed is rich and abundant. Alderneys or Jerseys are now being imported. Their milk is very rich and they make an abundance of fine butter. But they are small, and not very hardy; what the result will be from them is uncertain. He has found that the Durhams, the Ayrshires and the Devons all take flesh much better than our native stock. He thinks that the same keeping that will make three lbs. of flesh in native stock, will make four in any of the above kinds.

Geo. M. Barrett, of Concord, said he had had some experience in the breeding of stock, more especially of the Ayrshire. But his experiments have not been continued long enough to determine its absolute value. His present impression is, that they will prove the best for milk. Ayrshire cows have short teats, and sound, compact bags. Where they have one-quarter native blood, they have good sized teats.

Maj. B. Wheeler said he had had some experience in raising stock. Durhams, he thinks the best for beef. They are large, hardy, and take fat easily. If the object of the raiser was to get cattle for beef, he would recommend Durhams.—But he has not been successful in getting great milkers from them. The Ayrshires he thinks fine milkers. The only objection is their small teats. The Alderneys give very rich milk, but they are not hardy, and within his observation, they are apt to be poor.

Col. Heard, of Wayland, keeps seven cows and always raises his own. Selects from his best and takes them to the best bull he can find. His cows have been mostly natives, but he has had some very good ones. Some 15 years ago, he and one of his neighbors purchased a bull, half Ayrshire, and kept him for the use of the neighborhood, and the result has been, that the stock has been a good deal improved. He thinks the Devons are very hardy and keep in flesh well through the winter. Ayrshire cows make more butter, and the butter keeps better than that from other cows.

The President made some inquiries respecting abortion in cows. This is becoming a very common occurrence and a serious evil. He inquired if any one could assign a cause for this?

Several gentlemen observed this had frequently happened within their observation of late, but assigned no reason for it. Mr. Sprague said that in his county, the butchers found the calves in a certain neighborhood were very fine, and they were willing to pay from fifty cents to a dollar more for them than for other calves, and this was found to be the result of the introduction of a certain bull into the neighborhood. This was a matter of no small importance. In England the breeding has been carried on by the best males. He referred to the practice of breeding in and in; an idea prevails in this country that this deteriorates the breed. In England a different idea prevails, and it is by this mode that the Devon Stock has been especially improved.

Mr. Amasa Walker had nothing to say but what he had said before upon other occasions.—We talk about native stock and foreign stock. But it was all one stock. The only question is, which has been longest in the country. Our fathers brought the best stock they could find. Other stock has been imported since. But we cannot re-produce stocks imported, any more than we can breed Englishmen. Although we are from the same stock, we are not Englishmen. Under the different climatic, dietetic and social influences we are very different from Englishmen. We are less muscular and more active and nervous. We are now importing largely the muscles of Englishmen and Irishmen to labor for us. We have brains enough, we do not need to import them. Our object must be to improve our stock by crossing. The raising of foreign stock is usually very expensive. It will do for amateur farmers. He has a fine pair of oxen. He knows none finer, three-fourths Durham,—but they have been very expensive. So of some cows he has had. They were fine cows, but expensive. He has one small native cow that cost much less, and costs much less in keeping; but she gives milk of fine quality and in large quantity and his women tell him that she is the best cow he has. Select such cows and breed from them by crossing and we shall get good cows.

Mr. Sprague did not agree with Mr. W. He thinks it very important to have good blood. If we get a good cow from such crosses as Mr. W. referred to, it would be accidental. We were not sure of it. Purify the blood, is a fundamental principle in stock breeding.

Mr. Smith, of Lincoln, said if we select the best native stock, and cross with imported—we can improve the stock. He has seen this demonstrated in the case of what is called the Prentiss stock in his neighborhood. Mr. Lewis, of Framingham, said he was surprised to hear it said that it costs more to raise foreign stock than native. He thinks this is not true except in the case of Durhams. He has an Alderney that yields one lb. of butter to 6 quarts of milk. Now, he mixes her milk with that of his other cows and gets 1 lb. to eight quarts. It usually takes 10 quarts to a lb.

Mr. Brown said that the cow that makes the most butter, will not always make the largest calf.

Dr. Reynolds thought the cow that gives the richest milk would make the fattest calf. Fat oil, of which butter chiefly consists, will make fat, but not bone and muscle. The caseine which abounds in curd, contains a large amount of nitrogen. This is essential to the formation of muscle. Hence milk that yields the most cheese will make the largest and most meaty calves, but not the fattest.

Mr. French, of Exeter, was a believer in blood. He said we were in the habit of importing into this country live stock from the coast of Africa with black skins and curly hair, and he would inquire how long it would take if it was bred in and in to change it, in this country into red skin with long straight hair. He thought it would take some time to run out the blood. You can no more get a Durham from a Devon, than an Indian

from a negro. The marks of the Devons are fixed and permanent. The Durhams are nearly as much so, but the Ayrshires are not so well fixed for they have not been distinct races so long. Why not breed from good native stock? Because you are not sure of a good progeny. He related an instance in his own experience to prove this. We must find the stock that has the qualities which we desire in the greatest degree, and breed from that.

Mr. J. B. FARMER, of Concord, said his grandfather always raised his own stock from his own bulls, and he thinks that his stock deteriorated. One spring he had nine calves, seven of which were idiotic and good for nothing. He thinks raising in and in not a good practice.

Mr. HEARD said that old cows gave to their progeny their own marks more strongly than young ones.

Prof. NASH, of Amherst, said he had but little experimental knowledge upon the subject.

But he would make one inquiry. It is conceded that it is important to take the cow to a good bull. He believed that opinion true. His inquiry is the following. Is not the cow herself deteriorated by taking her to a mean animal? If you take a fine mare to a mean animal, she deteriorates from sympathy with the male. Is not the same thing true of the cow?

Mr. ROBINSON, of Dorchester, said he was not much acquainted with raising stock. He keeps stock for their milk. He thinks the care of stock of more importance than the breeding. This matter of the care of stock is of infinitely more consequence than is usually imagined. If he were to give an opinion upon the comparative value of different breeds he would say the Ayrshires, were the best for the dairy and the Devons for the plow.

Dr. REYNOLDS said the crop of hay last year was small, and he presumed it had led to experiments in feeding stock. He would inquire the results of experiments upon cutting hay, the present winter. Mr. GLEASON, of Wayland, thought the quality of the hay last year was better than usual, and although the amount given to stock has been less than usual, he thinks stock in general is coming out well this spring. He does not think much is gained by cutting hay. But he thinks all feed should be wet—as to raising stock, it costs more to raise than to buy, but we are more sure of good stock. Take a cow that is a good milker to a bull that came from a good milker and you are almost sure of a good milker.

Mr. SPRAGUE made some remarks upon the importance of taking better care than we usually do of our calves and young stock.

Dr. BARTLETT, of Chelmsford, said that the subject of feeding was of more importance than any other in relation to stock. He uses apples very freely in feeding young stock, and he thinks, fed in this way, they will do better than on roots and hay. Corn fodder he uses extensively, sows Southern flat corn broad cast, very thick, that the stalks may be small, and he thinks, pound for pound, it is worth more than English hay. He sows in July for winter feeding, and early for summer feeding. Salts it in the mow, and cattle prefer it to hay. He gives apples to his milch cows, and thinks them excellent food. He would freeze and then thaw them and immediately feed to the cows.

Maj. B. WHEELER has used apples as food for cows, for thirty years, very successfully; values them highly for this purpose.

At this stage the meeting adjourned for dinner. One hour was spent in discussing the good things of the table. The farmers then returned promptly to the hall, and the subject of *Plows and Plowing* was called up. Several plates were arranged on one side of the hall exhibiting various patterns of plows, ancient and modern. Explanation of the plates, with remarks upon the improvement in the structure of this most important implement in the cultivation of the soil, were made by the President.

The next subject called up was *Agricultural Education*. Mr. WALKER addressed the meeting in a most interesting and eloquent manner. He said this subject was arresting the public attention more strongly of late than ever before. He took the ground that every farmer *should* understand the science of his profession, and that he *can* understand it. The physician who does not know why he gives a certain dose of medicine, is not entitled to, and does not have our confidence. The farmer has more to do with the laws of nature than any other profession. If he is guided by tradition it is a very uncertain guide. The farmer has to do with fifteen elementary substances, and he must act in conjunction with the laws of nature, in effecting their combination and decomposition. He then named and described these elements viz., oxygen, chlorine, sulphur, phosphorus, silicon, hydrogen, nitrogen, iron, manganese, potassium, sodium, calcium, magnesia and alumina. The farmer ought to understand geology which teaches the nature and composition of soil and rock. Soil is made mainly of decomposed rocks. Rocks are divided into stratified and unstratified, aqueous and igneous, those that have been deposited by the agency of water in strata, and those that have been deposited by the agency of fire not in strata. He then spoke of the constituents of rocks. Granite contains a large amount of potash. It contains soda, lime, manganese and iron. Pulverized rocks manure the soil and repair its waste. When we learn to pulverize rocks readily and cheaply, we shall have the very manure we want for some soils and for some crops. We want to know the composition of vegetables that we may

adapt them to our soils, that we may furnish to our soils the elements needed in raising any given crops. This then, is a matter of practical utility. We want to know the comparative value of manures. In order to do this we must know the component elements of different manures, and to know how to combine and to preserve manures. How to fix their volatile elements. There is hardly a farming process carried on by the farmer or his wife that is not a chemical process, and they can be carried on better when they are understood. Butter-making is an example of a purely chemical process. Butter is oil which in cream is contained in little bags, covered with caseine or cheese; at a low temperature, you cannot break these bags to get at the oil, by any mechanical force. But at 60° Farenheit by constant stirring and thus bringing them into contact with the oxygen of the air, these little bags will burst, and their particles of oil will run together and accumulate into lumps. Butter must be worked as long as the caseine comes out. The object of working is, to get clear of this caseine, which will soon putrify and become rancid. Must not be worked too much or you will work out the sugar, which gives its sweet flavor to butter.

His second proposition was, that every farmer can understand the science of his profession. A few years ago this could not be said. But the science of agriculture has been simplified like the science of geography, so that every one can understand all that is essential, in a few months. He would advise every young farmer to go to studying, and to persevere until he masters the subject, so that when he reads in the *Farmer* about phosphates, and carbonates, he may understand what he reads. He spoke of the *Progressive Farmer*, a book that costs but 50 cents, and has been prepared with great care for the use of those who desire simple, practical information upon these subjects. He advised young men to form themselves into classes, and pursue the study. The whole lecture was intelligible, instructive, and highly interesting, and we want a hundred such in the State the present year.

The subject of root crops was then called up. Wm. D. Brown spoke of carrots, turnips, &c., raising, storing and feeding them. He stated that when, a few years ago, the landlords in Scotland raised the rents, the farmers went into the raising of root crops, and paid their rents with the avails of their crops easier than before.

Maj. Wheeler said it costs but little more to raise carrots than corn, if we manage right. The ground should be plowed deep, and sowed about the middle of June. As soon as the carrots show themselves, they should be hoed, and then frequently hoed, and they will require but little weeding.

Mr. Sprague said turnips are a great crop in England. They sometimes get 40 tons to the acre. The climate and soil suit them. We cannot raise them in such abundance in this climate—six or eight hundred bushels is as much as we can expect. He has raised 1600 to the acre. We probably expect too much from them. The English do not expect so much from them. He thinks ruta-baga the best kind of turnips—more easily raised than carrots. Salt hay alone is poor food for cows, and turnips are poor food for cows; but give them both together, and they are very good food. He is fattening two cows upon them at this time. We can raise turnips at from six to eight cents per bushel; at this rate they are good food. Cattle feeding upon dry hay, do better for some succulent vegetables.

Mr. Comings, of Mason, N. H., followed in some interesting remarks upon feeding stock.

Hon. J. W. Proctor did not arrive until after 5 o'clock, P. M. He closed the afternoon session with some interesting remarks.

At the close of Mr. Proctor's remarks, the meeting adjourned till 7 o'clock.

At 7 o'clock returned to the hall and met a brilliant assembly of farmer's wives and daughters, blooming and intelligent. At half-past 7, Mr. H. F. French, of Exeter, N. H., commenced a lecture which continued one hour, and fixed the attention of the audience to the last. He spoke in a plain, simple and easy style, of the importance of science to the agriculturist, and of the embarrassments attending the pursuit of scientific researches; we must not expect too much of science, nor must we be deceived by the promises of those who are mere pretenders to science. We cannot do justice to this lecture without reporting the whole—one must have heard it, properly to appreciate it.

Mr. French was followed by a lecture from Prof. Nash, of Amherst, upon the most important elements of manures. He exhibited specimens of Hydrogen, Oxygen, Chlorine, Carbonic acid, Ammonia, Carbon, Carbonate of Potash, Potassa, Potassium, Lime, Magnesia, and described them and showed their properties. He then spoke of the elements in animal manures, their action upon the soil and upon plants; how to improve manures and to fix their volatile elements, and various matters of great interest to the farmer. His remarks were very correct, and proved him to be thoroughly master of the subject which he undertook to discuss. The audience manifested much interest in all his remarks, notwithstanding the lateness of the hour.

Thus ended the experiment of a Farmers' Mass Meeting, and considering that it was an experiment and the first time it has ever been tried, it may be considered perfectly successful.

For the New England Farmer.

PRESERVING APPLES.

Take a tight flour barrel with one head, cover the bottom with *clean, dry saw-dust*, then a layer of apples, blow end down, not allowing them to touch each other or come in contact with the barrel, leaving a space on the outside of about one inch; cover one inch with saw-dust, then a layer of apples, &c., until the barrel is full, leaving about three inches saw-dust on the top. Put the barrels into a room without fire, or into a tight outbuilding, they will not freeze or rot; the places in the apples bruised by falling from trees, or otherwise, instead of decaying, will become like dried apples, and the balance remain sound.

Your ob't servant, Geo. B. Green.

Windsor, Vt., 1853.

GRAFTING.

The season is near at hand for performing this operation. Scions should be cut immediately and kept in a cool moist place. There are various modes of grafting, but a few of the best are sufficient for all purposes. We copy from Cole's Fruit Book, and believe the directions are sufficiently clear and precise for the direction of any who may have the work to do.

Cleft Grafting is the most common. It is practised on large stocks and those rather small. In large stocks, an inch or more in diameter, two scions are set; this aids in healing over the stock, and keeping it sound and healthy; and when the scions interfere the second or third year, one is usually cut out. Sometimes both remain.

Saw off the stock with a fine saw, and pare smoothly with a sharp knife; then split the stock with the grafting-knife, and open it with the wedge on the same. Or a common knife and a wooden wedge may be used. Sharpen the scion on both sides, with a straight scarf like a wedge; let the scarf be about 1½ inches long, more or less, according to the size of the scion and the splitting of the stock, making the scarf of the scion as long as it can be conveniently fitted to the stock. Large scions should have shoulders at the top of the scarf, else the stock would be split too wide. It is best for the stock to cover, or almost cover, the scarfs on the scion. The outer part of the scion should be slightly thicker, to make a close fit there. Leave two buds on the scion, setting the lower bud just below the top of the stock. Adjust the scion so that the joint between the bark and wood, in the stock and scion, will exactly correspond; this is important, as that is the place of union between them. This done, withdraw the wedge, and apply the cement or clay. In cutting scions, reject the but, as the buds start reluctantly or not at all, and reject the top also, as it is too soft, or may be winter-killed.

Cleft Grafting.

Scarfing the Stock.—When only one scion is set in a stock of moderate or small size, if the stock be scarfed off on the side opposite the scion, (as at *a*, in the figure,) it will heal over the sooner. We have grafted as follows with excellent success. With a drawing stroke of the knife, cut off stocks or small limbs, say from ½ to ¾ an inch in diameter, making the length of the scarf about 4 times the diameter of the stock; cut off the point or top of the stock down to about the thickness of the scion; (as at *b*;) then split the stock, shape the scion, and with a wide knife at the end, or blue point, *pry* open the stock on the scarfed side, and adjust the scion, which should be thicker on the outside. We have grafted in this way; and in the fall, stocks ¾ of an inch in diameter have been completely healed over, and so neatly in some cases, that we could not determine by their appearance whether they had been grafted. We prefer this mode; it is neat, expeditious, and successful. We have put good new tops on small standard trees, in one season, by grafting the limbs in this way, so that the change was hardly perceptible.

The Stock Scarfed.

Splice or Whip Grafting. This mode is adapted to small stocks, and it succeeds best when the scion and stock are precisely of the same diameter. When one is larger, they should be matched precisely on one side. The stock and scion are scarfed off, about 1½ inches in length, and by cutting downward in the stock and upward in the scion, a tongue is raised on each, (*a*, *a*,) which is fitted into the cut of the other. This is a very perfect and sure method, and stone fruit will sometimes take better in this way than in any other. Bind it very neatly with matting, and then apply composition; or better still, wind round composition cloth without matting. The cloth will yield in warm weather, as the tree grows, and is better than matting, as that will girdle the tree, if not loosened.

Splice Grafting.

Side Grafting.—Make a T in the bark, as in budding; then cut out a small piece of bark crosswise just above the cut, that it may allow the scion to fit closely to the wood below. Scarf off the scion, as in splice grafting, commencing the scarf at a slight crook, if such there be in the scion, that it may stand off. Sharpen the point of the scion on the side opposite the scarf, cutting a little each side of the round part, that it may slide down well, then raise the bark as in budding, and press down the scion; if the upper part hugs closely to the stock above the cross-cut, press it to the stock where it is set in the bark, and bend the upper part off. Bind it closely to the stock, and apply composition. When the bark does not peal, the stock may be scarfed off a little, and the scion, formed as usual, fastened on. In this way, side limbs may be formed when there is a deficiency, and grafting done without cutting off the tree or stock.

Side Grafting.

Crown Grafting is the same as side grafting, only instead of a cross-cut in the bark, the stock is cut off. It is adapted to stocks that are too large for cleft grafting. Or, after cleft grafting large stocks, scions are set in this way between the other scions, to keep the stock alive and promote healing, and they may be cut off for scions, and the others will cover the stock.

Saddle Grafting is but little practised. The

stock is sharpened in wedge-form; the scion is split up in the centre, and each half thinned away on the inside to a flat point, and then set on the stock, with a good fit, at least, on one edge. It is most practised on stone fruit, and when the scion is immature.

Saddle Grafting.

Sometimes large stocks are grafted after the usual season, by splitting up the scions two or three inches, with one side the stronger. The stock is scarfed off on one side, and the stronger side of the scion is fitted into the bark opposite the scarf, and the thin part is brought down over the scarf, and the lower end inserted under the bark below the scarf. The thin part of the scion passing over the scarf promotes healing.

Root Grafting.—In the Middle States and the West, this mode succeeds better than in the North, where the seasons are shorter. Roots are cut into pieces of various sizes, from 3 to 5 inches. If large, cleft grafting is best; if small, splice grafting is preferable. Some apply composition, others omit it, as the root is covered in earth. The surest way is to apply it, but with omission it is generally successful. The better way is to have the roots accessible in winter, and graft the latter part of winter or early in spring, and set out the stocks in earth in the cellar, in boxes or not, until the ground is dry enough for setting out.

Grafting Large Trees should generally be done gradually, occupying 2 or 3 years, according to the size of the tree and manner of grafting. Graft the top first, as scions at bottom will not grow well while overspread by large branches. Leave twigs and shoots on the limbs, to sustain the limb till the scions grow, and then remove them gradually, but perhaps not till the second year. Many an orchard of large trees has been ruined by cutting off all the top at once, in grafting, exposing the trunk and branches to the hot sun, and giving a sudden check to the growth and life of the tree. But if the limbs are all cut off and grafted at once, towards their extremities, say where only an inch in diameter, and numerous twigs and little limbs are left, then the tree does not feel a shock, as the twigs and numerous scions soon form a good supply of foliage; and as the latter grow, the former are removed. Or graft limbs enough for a new top, where not very large, and remove the others in a year or two, as the scions supply their place.

Never graft an unthrifty tree; it is lost labor. First cultivate, prune, and wash, and put it in a vigorous condition.

Grafting Composition, and its Application.—1 part good beef tallow, 2 parts beeswax, 4 parts white, transparent rosin; melt all together, turn into cold water, and work and pull it thoroughly, as shoemaker's wax. This composition is not so soft as to melt in warm weather, nor so hard as to crack in cold weather; but it *gives* as the tree grows. It is of great importance to have it of a right temperature, and well applied, else it will peel off in cold weather. While warm, it should be pressed closely to all the wounded part of stock and scion.

☞ An ornamental tree society has been formed in Stoneham.

ROCKINGHAM COUNTY, N. H.

The farmers of old Rockingham held an agricultural mass meeting, at Exeter, N. H., on the 10th of February, which was "a starter." A large number of people were present. Henry F. French, Esq., of Exeter, presided. "He stated the object of the meeting to be,—to adopt measures for the promotion of agriculture—to awaken a new interest in behalf of the association they had recently formed, and to arrange for a Fair in the autumn." Everything was propitious; on the 28th of October they had no organization—now they are organized, and at work with a fund of over $1,500!—Prof. Hoyt, and Mr. French, of Exeter, Robinson, of Brentwood, Cram, of Hampton Falls, Currier, of Derry, Clarke, of Atkinson, Bartlett, of Stratham, Learned, of Chester, Sanborn, of Kingston, and others, we learn, made capital speeches, interesting and instructive. The following resolutions were reported, and we believe adopted.

Resolved, That a National Bureau of Agriculture ought to be established.

Resolved, That our State Legislature ought to establish a State Board of Agriculture, appoint a State Commissioner, and make appropriations in aid of Agricultural Societies.

Resolved, That it is important to improve our present breeds of stock, by a cross with the best imported breeds.

Resolved, That the ladies be invited to enrol their names as honorary members of the Society.

For the New England Farmer.

CARROTS VS. ENGLISH HAY.

Gents:—Annexed is an extract from a letter received from one of the best experienced farmers in the county of Worcester. His estimate of the value of carrots, as feed for stock, comes short of most others,—but not so much as appears on the first reading. Valuing English hay at $20 the ton, Mr. Brooks would value carrots at $8 the ton. Generally speaking, they are placed at half the price of hay. Perhaps their true value will be found between *one-third* and *one-half* that of good hay—according to the purposes for which they are wanted. Mr. Brooks' view of draining are worthy of much consideration. This is a mode of improvement but little practiced among us and less understood. I remember to have seen it very successfully applied, by Mr. Colman on his farm in Lynn, whereby the value of the land was increased *four fold*. What is *meat* for one, may be *poison* for another; so in directions for farming, circumstances materially alter cases. General rules cannot be applied without qualifications.

Very truly yours, J. W. Proctor.

Danvers, Feb. 16, 1853.

My Dear Sir:—Your favor of the 19th ult. came duly to hand, acknowledging the receipt of the Worcester County transactions, and saying that you had recently turned your attention to the culture of the root crops, for which I am glad, as I have no doubt you will add much that is useful to this important subject. Prof. Mapes is too sanguine in his statement as to the value of carrots. It is true, that a horse fed partly on car-

rots or any other green food, or even wetted hay, is less subject to heaves, than when fed on dry hay alone. It is not true that when a horse is fed in part on carrots, that shells of oats and pieces of cut hay will not be found in his dung. I have fed a colt this winter, (coming three years old) a portion of the time, on cut hay, with one peck of carrots daily, and a part of the time on cut hay alone, and can discover no differences in his excrement, it being equally chappy when fed on hay and carrots as when fed on hay only.—The statement that 50 per cent is saved, by cooking meal for hogs, is beyond my experience, which is not more than 25 per cent. saving in cooking corn, rye, barley, or oat meal, and 15 per cent. saving in cooking roots. You will find a statement of all I know as to the comparative value of good English hay, Indian meal, flat turnips, carrots, and good oat straw in my letter to the Worcester county societies' committee on feeding; published in the supplement to their transactions of 1852, page 29.

In the trials there detailed, I make five pounds of flat turnips equal to one pound of hay, three pounds of carrots equal to one pound of hay, and one pound of Indian meal equal to four pounds of hay; the trials were made with good English hay, and were for milk. In these trials you will perceive that three tons of carrots are equal to one ton of English hay; therefore hay at ten dollars a ton, would leave carrots worth three dollars and thirty-three cents the ton. You will find in the same supplement, page 32d, a letter from the late J. W. Lincoln, in which he says he gained one quart of milk, daily, by feeding one peck of carrots; allowing carrots to weigh 50 pounds the bushel, or 12½ pounds the peck, and milk to be worth on the farm 2½ cents the quart, and hay ten dollars the ton, the amount would stand thus: Four pecks or one bushel of carrots equal four quarts of milk at 2½ cents, would be ten cents the bushel for carrots; 40 bushels of carrots to the ton would be ten times forty-four dollars the ton for carrots, and to this the daily saving of four pounds of hay, the hay value of 12½ pounds of carrots, hay at one-half a cent the pound, and you have $4.02 as the value of one ton of carrots, or 69 cents the ton more than I made them worth in my trial.

I have but little experience as to the value of the beet family, having made but one trial, and that with the mangel wurtzel. On the 15th of November, 1833, I commenced feeding a steer 43 months old, and weighing 1205 pounds live weight. I fed him on 36 pounds of good English hay daily for 30 days; he gained in weight in the 30 days, 60¼ pounds. I then fed him 30 days on 24 pounds of hay, and 36 pounds of mangel wurtzel daily, and he gained in 30 days 62½ pounds, showing 36 pounds of mangel wurtzel to be equal to 12 pounds of hay. I then fed 30 days on 36 pounds of hay, and 108 pounds of mangel wurtzel daily, and the steer gained in the 30 days 125 pounds, or about 4 pounds daily, or twice as much as when fed on 36 pounds of hay alone, which goes to show that 108 pounds of mangel wurtzel are equal to 36 pounds of hay, or that 3 pounds of this root is worth one pound of good English hay, which I believe to be about the truth.

Your query as to whether drains cut so deep and near together as recommended by the Worcester committee, is a just one, and worthy of consideration. In some favorable situations, it may no doubt prove a good investment, but generally in this State, land suitable for cultivation is too cheap to pay for thorough draining. If land be drained at all, thorough draining is in the end cheapest, and you cannot drain thoroughly without cutting drains deep, and frequent, for the reasons stated in the Worcester county committee's report. There is a query, however, before yours to be settled, which is, whether in our dry climate, draining (except it be our peaty swamp meadows) be recommended at all, whether the advantage gained by draining our retentive uplands, wet in a season, will not be lost in a dry season, is a question not yet decided in this country. I have doubts upon this question, and we need practice and experience to determine the facts. There are good reasons for draining in England under their drizzly, rainy sky, that do not exist in our country. Ten years ago, I cut a drain 3½ feet deep, and six feet wide, through a piece of retentive clay loam land about twenty rods long; last summer the grass 20 feet each side of the drain evidently suffered more from the drought than in other parts of the field. This leads me to doubt the utility of indiscriminate draining, as some ardent gentlemen recommend. The profits on Mr. Bailie's farm was probably $100 or $150 more than stated by him, he being an old-fashioned farmer and very conscientious in his statements; he would, no doubt, make the income from the farm quite as small as it really was. The farm, though large in acres, is small in value, a considerable portion of it being poor, sandy land, producing but little.

Very respectfully yours, John Brooks.

Princeton, Feb. 10, 1853.

GLEANINGS.

Warm Stables.—The *Valley Farmer* says the owner of seven horses, who kept them in a warm stable, ventilated near the eves, stated to him that they ate only two-thirds the quantity of food in a given time that they required in the same time in common, open stables, and the horses were in better condition than they had ever been before.

The Oats Crop.—The *Germantown Telegraph* thinks the proper time for sowing oats, is as soon as by the absence of frost the earth can be plowed and put in good order; that the early sown, makes the most grain and best quality. Right, undoubtedly. He says, too, that agricultural associations are multiplying rapidly in Pennsylvania. Prof. Wilkinson, in the same paper, announces his intention of discontinuing his Institute at Mount Airy, on the first of March. It has existed eight years—had 217 pupils, among whom were but *four* sons of farmers—"the latter thinking that they are competent to educate their own sons." A large majority of these pupils have embarked in, or design to make, agriculture their profession.

Skinning a Pear Tree.—W. S. Lyles, in the *Soil of the South*, Columbus, Ga., says he stript a

favorite pear tree entirely of its bark, from the limb to the root, on the 21st day of June, and "it neither wilted a leaf nor dropt a pear; but ripened the latter, with which it was loaded, to perfection. It has now [no date] a fine coat of smooth, young, glossy bark, except on a few spots, where the knife happened to strike the wood." Mr. L. thinks this operation will rejuvenate old trees.

Native Grasses.—The *Farmer and Planter*, Pendleton, S. C., thinks the native grasses, which grow on their branch and creek bottoms, much better than any that grow naturally or can be cultivated successfully on up-land, in that part of the country. Will the *Planter* inform us how much its crop of corn was, per acre, in his experiment with guano and plaster? Both parcels of land—where the gain by manuring was 33 per cent., and on the unmanured.

The American Farmer, Baltimore, advises to sow 12 pounds of clover seeds over every acre in wheat. Is that intended for pasture or a grass crop? For a wash for trees he recommends 1 gallon of soft soap, 1 quart of salt, and 1 pound of flour of sulphur. He says, "a peck of crushed cobs and a peck of cut fodder, hay or straw, thrice a day, will keep your cows well up to their milk." If that quantity of feed would keep *our* cows "well up to their milk," we could make a profit at present prices. But we fear that not only the milk would disappear but the flesh also.

High Price for Land.—140 acres of land have recently been sold, eight or ten miles from N. Y. city, at a price of $500 to $870 an acre!

Influences of Forests.—M. Becquerel, a French *savant*, has just published an elaborate work on forests and their influence on nature, in which he treats the subject at once scientifically and historically. He has lately presented to the Academy of Sciences an analysis of that work, containing a notice of the principal conclusions at which he has arrived. They are in brief these, as we learn from the Paris correspondence of the *Boston Journal:* "That forests act upon the climate of a country as frigorific causes; that they also act as protection against winds and as a means of preserving living springs; and that they prevent the degradation or wearing away of mountains. As to the influence of forests upon the climate, there is much difference of opinion, but the above is the opinion of the author, stated with due deference to the distinguished persons who hold different views. M. Becquerel also considers that forests act as protection against the communication from place to place of contagious diseases."

Wash for Trees.—"A Practical Farmer," in the *Germantown Telegraph*, says, "for young trees he prefers a ley made of house ashes, to potash; and that when he tries the latter it is only one pound to *two* gallons of water.

Stone Buildings.—Lumber is every day becoming scarce and higher. Buildings constructed of wood are quickly perishable, unless constantly covered with a coat of paint, and if kept so covered, they are too expensive. We have millions of perches of good stone scattered through New England, large portions of which now cumber the ground by preventing the growth of crops and breaking farm implements. Houses constructed of stone, are more durable, much less expensive to be kept in repair, warm in winter, and cool in summer. Will some one who understands the matter give us the difference of cost of construction between stone, brick and wood, with such other facts as shall turn attention to this important matter?

For the New England Farmer.

ORNAMENTAL TREES.

BY J. REYNOLDS, M. D.

In arranging our estates, it is always well to have some regard to their market value. This is a duty we owe to our families; life is uncertain, and we know not how soon our property may be thrown into the market. A man is under the same kind of obligation to regard the market value of his property, that he is to seek safe and profitable stocks, when he would invest his money in stocks.

A few dollars in money or labor, expended in no other way, will add so much to the value of an estate, as when expended in setting out ornamental trees. Nothing adds so much as trees, to the pleasant and cheerful aspect of a house and the grounds about it. The magnificent elm, with its long arms stretching towards the sky, the lighter ash, the cheerful maple, and the thick heavy foliage of the horse chestnut, interspersed with the fir, the pine and the arbor vitæ, whose deep green gives cheerfulness even to the dreariness of winter, when tastefully arranged, and placed in judicious contrast with each other, give a pleasant aspect and an inviting appearance to a house and home, that exposed unprotected to the scorching rays of the summer sun, and to the pitiless blasts of winter, would be unpleasant and uninviting.

A hundred dollars laid out in almost any other way upon one's premises, will scarcely be noticed. If expended in building a porch, an arbor or a trellis, they will soon decay and require a new outlay to keep them in repair. But money expended in trees increases in value annually, faster than money at compound interest. A beautiful tree that costs perhaps, set out, one dollar, will add to the value of an estate in ten years, fifty or a hundred dollars. The growth of trees, which costs only a little care, increases their value rapidly. And a circumstance of much importance is, that such trees may be usually placed in situations where fruit trees would yield but little profit. Forest trees are generally longer lived than fruit trees, and do not require to be so often replaced.

Oaks and elms when once rooted in the soil, become incorporated with the earth, an integral part of the estate; we look upon them as we do upon the rocks and hills, as permanent fixtures, and when we recall the places and scenes with which we were familiar in early life, we find that our memories have retained the forms and

appearances of these old trees, among their most cherished treasures.

One of the attributes with which nature has endowed us, and one which contributes much to our happiness, is a love of beauty. A tree, or a group of trees, is in itself a beautiful object. By selecting and setting out beautiful and symmetrical trees, we have them always before us, and thus gratify and cultivate one of the most pleasing instincts of our nature. And then, in surrounding our dwellings with shade trees, there is a peculiar fitness. They are associated in our minds, with shelter, protection, comfort, and are most appropriate to each other.

The moral effect of surrounding ourselves with these beautiful objects, is by no means to be overlooked, especially when interspersed with trees are flowers, and flowering shrubs. These last are peculiarly beautiful in their season. The fragrant lilac with its modest blush, the creamy white seringa peeping from the deep green of its foliage, the hawthorn, the sweet briar and the wild rose, filling the air with sweetness, the snow-ball, with its clustering petals, the delicate hues of the althea and the pearls of the snow-drop mingle their beauties and their fragrance with the scene. And while our sight and our smell, our love of beautiful forms and sense of fitness are gratified, and a spirit of cheerfulness and contentment steals over us, we can rejoice that this is our home, and our hearts swell with gratitude for so many pleasant gifts. Contrast the possessor of such a group of flowering shrubs and beautiful trees, with the man whose home knows no cooling shade, no sweet scented flower, no graceful forms waving in the wind or murmuring in the breeze, and say if the latter would not make a cheap purchase could he secure the pleasure which the former is enjoying, at many times its actual cost.

Our fathers set out many elms and sycamores and maples, and there are in many of our villages, fine trees of these kinds, the monuments of their taste and forethought. We can only regret that they did not plant a greater variety, and plant them in greater numbers. Were all the villages of New England ornamented with avenues of elms, oaks, maples, ash, horse chestnuts and English elms, interspersed with firs, pines and arbor vitæ trees, and the immediate vicinity of our dwellings adorned with flowering shrubs, as is the case with some villages in the near vicinity of the metropolis, and beauty and taste thus combined with Yankee thrift and enterprise, New England would be unsurpassed for attractiveness, by any part of our country. A judicious mingling of trees adds much to the beauty of a rural scene. Evergreens growing under the shelter of more lofty deciduous trees, add to the cheerfulness of the picture, and afford a useful screen from the wintry blasts, when they can be planted upon the north side of avenues, yards and gardens. Trees planted in groups as they grow in the forest prevent in some degree the evaporation of moisture from the soils, and are more likely to thrive than when standing alone. In their native forests, nature provides for the nutriment of the trees, by the annual decay of their leaves. But when trees are set singly, or in small groups, their falling leaves are mostly dispersed by the winds, and the ground must be made rich by other means, if we expect them to thrive rapidly. Probably the best manure for forest trees is a collection of their own leaves, covered with sufficient soil to prevent them from blowing away. The cultivation of forest trees has been but little attended to; it has been thought quite enough to set them out. But there is no doubt that forest trees, as well as fruit trees, will thrive better under suitable culture, and will amply repay judicious care. I intended to speak of the proper methods of removing and setting trees, but must defer it to another time.

Concord, Feb. 17, 1853.

A SONG FOR THE MILLION.

The following beautiful song was written by request of the Hon. Zadock Pratt, of Prattsville, N. Y. It is one of those productions which never grow old,—for as long as there is occupation for men, and their hearts beat, there will be found a sentiment in it to touch the heart and encourage it.

BY HON. B. B. FRENCH.

Air—*The Hunters of Kentucky.*

The noblemen of Nature are
The hardy working classes,
The tillers of the yielding soil,
The *blouses* and the *masses.*
The stalwart farmer drives his team,
And while he turns the sod, sir,
He sings his song of happiness,
And puts his trust in God, sir!
O, the Farmer, the independent Farmer—
O, the Farmer, the independent Farmer!

He to the soil commits the seed,
The fruits spring forth and thrive, sir;
He gathers in the harvest, and
He keeps the world alive, sir.
Then bless the Farmer in your prayers,
And neither thwart nor flout him;
Be grateful to him always, for
You cannot live without him!
O, the Farmer, &c.

The Blacksmith—how beneath his sledge
The sounding anvils ring, sir;
Amid the flying sparks he stands
More sovereign than a king, sir:
The heated mass assumes a shape
Beneath his swinging blow, sir—
The coulter, and the scythe, and spade,
Within his furnace glow, sir.
O, the hammer, the anvil and the hammer—
O, the hammer, the anvil and the hammer!

Blacksmiths are men—"aye, every inch"—
Their sinewy arms behold, sir;
They, solid as their anvils, are
Of Nature's purest mould, sir.
The Blacksmith takes the precedence—
Of trades it is *the* trade, sir—
The haft is worthless till it holds
The keen and glittering blade, sir!
O, the hammer, &c.

Next in the scale of workingmen
The hardy Tanner see, sir,
Delving amid his hides and bark,
As busy as a bee, sir:
His art converts the unseemly hide
Into the polished leather,
Which sparkles in the mazy dance
Or brushes through the heather.
O, the Tanner, the busy bustling Tanner—
O, the Tanner, the busy bustling Tanner!

Should enemies invade our soil,
Their force we would repel, sir,
By calling all the Tanners out,
To *tan* the rascals well, sir;

They'd stripe them off, and star them o'er,
And *curry* them, no doubt, sir;
So that "their anxious marms would guess
Their children had been out," sir!
O, the Tanner, &c.

A niche for good Saint Crispin's sons,
Of quiet life and manner;
The world were *bootless* but for them—
They second well the Tanner;
Well are they styled "the gentle craft,"
O'er Beauty's foot they bow, sir;
And oft, I ween, they steal a kiss
From Beauty's placid brow, sir!
O, Saint Crispin—the gentle sons of Crispin—
O, Saint Crispin—the gentle sons of Crispin!

But, should we name each working class
In this our working song, sir,
Perchance it never would be sung,
For it would be too long, sir;
Then here's to all who use the plane—
The axe, the saw, the crow, sir—
The soldering iron, the turning lathe,
The shovel, spade, or hoe, sir.
O, the masses—the independent masses—
O, the masses—the independent masses!

The days of monarchy are o'er—
All men are monarchs now, sir;
The people rule, and monarchs may
Before *their* sovereigns bow, sir!
The jewelled crown, the purple robe,
Man far away shall fling, sir;
And sceptres shall be working-tools—
The printing press the King, sir!
O, the people—the independent people—
O, the people—the independent people!

For the New England Farmer.

THE FARMER WITH TWO IDEAS.

BY A. G. COMINGS.

There was a farmer I knew, and a merry man was he, who had one idea at rising up, which went with him all the day, and another at going to-bed, which last was as old as its brother idea, and these made the merry mood of the merry farmer I knew.

The morning idea danced out with a jovial song for *A Present Profit* to the worker who breaks the turf and mellows the yielding soil; and the evening idea was as merry as merry could be, among the growing trees, the stretching vines, the children at school or play, and all the growing tribes in house or barn, as the song of *A Profit for years-to-come* was heard with inspiring glee.

Year after year the merry man kept up his two ideas, and they filled his barns, they filled his cellar, they filled both garret and stall, and they filled his purse so the strings would often break and the bank would only take the burden of his toils. And the merry farmer became a walking wonder, and a thousand wondering people said, "Why is it?"

Then they all began to talk about the farmer's two ideas, and how they kept him in such a merry mood. And they found that the morning idea was not forgotten, nor allowed to trespass on the evening idea. So the farmer never worked his farm without feeding it, and he was careful to give it food which would cause it to produce very plentifully in immediate action, and yet remain healthy for time to come. It was established also that the evening idea should not be left alone at any time; but, where much was hoped for in time to come, much must also be exacted in the passing day.

His fields produced plentifully, but every year gave an increase of plentifulness, compared with the year before. He procured the most active manures, and by these secured large and immediate crops. Upon the same ground he put large supplies of less active manure at the same time, and this gave promise for the future. One gave him "joy in harvest," while the other gave him hope of "a good time coming."

His gardens flourished, his trees grew, the birds sang by his door, his daughters were virtuous and happy, his sons loved the open world for a workshop, and his wife sat a queen in their own quiet court; and all this joy and gladness came along in the very same path where the farmer's two ideas led the way.

Thus lived the merry man to a good old age, and prospered in all his many years, singing along the way of life about "A present profit," and "A profit for years to come."

A REASON FOR THIS AND THAT.

To manage a farm for mere present profit, at a sacrifice of its ability to produce in future, is like a man's tearing down one side of his house for firewood, in a winter day. He makes a gain by a greater loss. Yet the practice of skinning and robbing farms by reducing their ability to produce, for a present scanty profit, is a way that too many follow. It is very seldom the case that a man makes a profit by the cultivation of any piece of ground which is not really made better for future use at the same time. But it can be made poorer either by cropping without manuring, or by cropping while a scanty amount only of very active manure is applied.

To manage a farm only for future profit, while the owner has no wealth beside, upon which to rest, is like going to sea in a bark canoe with the expectation of finding a good and richly laden ship in some quarter of the ocean; or like a penniless man starting for California without provisions. Every man who needs to increase his wealth, by farming, must give attention to present profit.

Every farmer should study to know the way of securing a present and also a continued profit, with an increase.

The idea of a present and a continued or future profit in farming, is like the boatman's illustration of faith and works by the two oars of his boat. If he pulled upon the one which he called faith, he made no headway, but only whirled round and round. If he pulled upon the other, which he called works, he was whirled about in the opposite direction. If he drew both at the same time, his boat was hurried over the waters.

Upon most farms there is necessity of cultivating a variety of grains and grasses, some of which must be cultivated with care, attention and manuring every year, to secure a profit. It should be equally the object of the common farmer to manage his grain and grass fields, his orchards and his garden grounds, so as to secure present profit while he is preparing every department to give a better profit in years to come.

In the management of some farmers a habit of doing things "for the present" prevails over every idea of doing substantially what is done. In this way everything is daily found out of place or out

of order. Continual loss is consequent upon it. This is justly called the "short-sighted" policy. It is so much the way of some, in the farm house as well as outside of it, that the short-sighted economy which they pursue is a source of constant loss and misfortune. They may be industrious, apparently econominal, and seek prosperity with untiring diligence, but poverty comes in their train. With such a family, either the man or the woman is shortsighted in management, and the order that is necessary to prosperity is not with them.

TWO PERSONS FOR TWO IDEAS.

The prosperous farmer has the two ideas which lead to prosperity; and he has a wife—yes certainly, a wife he has, who has also the same two ideas with himself. She can see beyond the end of her nose as well as he, and she can see what is within her reach also, as well as he. She secures the present profit and the profit for years to come, and puts to use the proper things in the proper time, and when she has used them she always puts them in proper order and in a proper place. And all I have to say more is only this: the merry farmer I knew had two good eyes, and he had "a little wife well willed," who had also two good eyes, and they both together had two good ideas, and they walked the path of life together, seeing to learn, and learning to a profit; and nobody can wonder any longer that he was a *merry* farmer all his days.

Mason, N. H.

LEGISLATIVE AGRICULTURAL MEETINGS.

EIGHTH MEETING—TUESDAY EVENING, MARCH 15, 1853.

The eighth meeting of the season was held at the State House on Tuesday evening. The subject for discussion was "*The Preparation and Application of Manures.*"

SIMON BROWN editor of the *New England Farmer*, presided, and on taking the chair, expressed the opinion that by an intelligent investigation of the subject of manuring, our neglected lands might be increased in fertility to the amount of millions of money annually. He then offered some practical remarks in relation to the subject. All matter stimulative of vegetation is manure, and the constituent elements of vegetables tell us what ingredients manure should contain in order to produce vegetation. Vegetables are composed of oxygen, hydrogen, carbon and nitrogen, and of course the manure applied to them should contain these elements; in preparing manures, we should collect all such vegetables substances as contain these requisites—those which may be fed to stock and that which can be used to absorb the liquid manure which falls from them. Vegetable matters decomposed by placing in the barn-yard or under cattle, are nearly worthless compared with an equal amount converted by stock. One hundred lbs. of fresh cow offal will furnish 2 lbs. 2 ounces of carbonate ammonia, while Johnson says 100 lbs. of hay would scarcely afford as many *ounces* as the former does *pounds*. It is the nitrogen, which evolves the ammonia, and gives manure its chief value; but this is not contained in the hay. Hence the kind of food fed to cattle is important. A cow, fed liberally, according to Dana, will prepare daily, about one bushel, or 85½ lbs. of manure, or in a year

4,800 lbs. of humus, or geine.
677 lbs. of carbonate of ammonia.
71 lbs. of bone dust.
37 lbs. of plaster.
37 lbs. of limestone, marble or chalk.
25 lbs. of common salt.
15 lbs. of sulphate of potash.

A cow will produce about 3½ cords of pure manure in a year, weighing 9,289 lbs. By taking the number of cattle in the State, and making an estimate as accurate as possible of the amount of manure they furnish, and affixing its cash value, we can ascertain what it ought to produce in crops.

Basing his calculation on the census of 1850, Mr. BROWN estimated that there were in this State, 150,000 milch cows, 47,000 working oxen, and 83,000 other cattle, each yielding 3½ cords of manure annually, making an aggregate of 980,000 cords. Besides these, 42,000 horses, at 2 cords each, 84,000 cords; 81,000 swine, at 3 cords each, 243,000 cords; 188,000 sheep, which with the poultry, will equal the swine, giving 243,000 cords more. This gives a total of 1,550,000 cords, which at 7$ per cord, a price which has ruled in Concord [Mr. Brown's residence] for many years, constitutes a value of $10,850,000 per year! Besides this, the speaker estimated that a fair valuation of night soil, street sweepings, refuse matter of sugar refineries, &c., would swell the amount to $20,000,000 annually.

In order to ascertain what this amount of manure should produce in the way of crops, the speaker selected the article of corn. If this grain is planted at the usual distance of 3½ by 3 feet, it gives 4,148 hills per acre. One peck of manure to each hill, which is a large allowance, would in 149,796 acres absorb the estimated amount of barn manures. At 40 bushels to the acre, this would yield 5,991,840 bushels of corn annually,—more than double the quantity ever yet produced in the State.

After manure has been saved, it should be kept from exposure to rain and the sun, else its salts will be washed out and its gases evaporated.—Great care should be observed not to let it ferment too much, because such an excess destroys its most useful qualities. Mr. COKE, a distinguished English agriculturist, has discontinued fermenting his manures, and he states that his crops are as good as ever, while the manure goes nearly *twice as far*. When placed under the soil, and contiguous to the seed, unfermented, the plant secures the benefit of the fertilizing fluids which exude from it in the course of fermentation, while the heat evolved renders the soil about the

plant a sort of hot-bed. A slight fermentation previous to use is undoubtedly useful, as that commences the process necessary to make the manure impart its fertilizing properties.

As to *the application* of manures, the speaker said that green, coarse manures, might be plowed under late in autumn, and the ground plowed again in the spring, before planting. He had pursued this course with satisfactory results. On corn land he would spread broad-cast, plow under three or four inches, on a light soil, and one or two inches on a compact soil, and apply ashes, guano, or some other special manure in the hill.

In regard to guano as a manure, Mr. BROWN believed it to be a most powerful fertilizer, notwithstanding many who have used it have been disappointed, and call it a "humbug." But it must be used with extreme care—the proper time being when the atmosphere is damp. It should be covered up immediately on being applied, and not suffered to remain on the surface of the ground. It should be used with peat mud that has been thrown out a year, pulverizing both well, and mixing five or six parts of muck to one of guano, which should be done on the morning of the day on which it is to be used. Mr. BROWN thought the difficulty which farmers had experienced in using it arose from applying it when dry. The best method is to apply it in a liquid state, but this cannot be conveniently done except in gardens.

Mr. WILDER, of Dorchester, was called upon by the chairman, and offered some remarks in regard to guano. He believed that at the present high price of labor, the cost of barn-yard manure on a piece of land would exceed that of an amount of guano sufficient to produce an equal crop. He considered it the very best kind of manure. It always succeeds best in a moist climate, and hence the immense quantity introduced into England, where $8,000,000 per annum is expended for it. Mr. WILDER related some instances of its great fertilizing effects. Mr. VENABLE, M. C. from North Carolina, had communicated to him the results of its use upon his farm. He had several thousand acres which he regarded as hardly worth cultivation. He applied guano to it, plowing it in deep, at the rate of only 150 pounds to the acre; and from the whole of this land he obtained an average of 23 bushels of wheat per acre; whereas before applying the guano he got only 5 bushels. Another instance was that of Mr. HOLCOMB, of Delaware, who purchased a farm of 2300 acres, with a brick house thereon, for $2500, owing to the miserable condition of the land. He sowed 75 acres of it with wheat, plowing in about 10 tons of guano; and the first crop paid for the farm and all its expenses, and left a small surplus besides.

Mr. WILDER's plan was to compound one part of guano with six parts of meadow mud, pulverizing it, and adding another part of charcoal; placing it in a heap (which must be kept covered,) three weeks before using it. He had found by experiment that half a handful of this compost was as good as a whole handful put in dry. In sandy soils it should be placed pretty deep, but in clayey lands, shallow. It should be applied early in the spring. Seven years ago he reclaimed a piece of meadow, and dressed it with 300 lbs. guano to the acre. The first year the crop was so heavy that it mildewed, and he had not been obliged to renew it.

Mr. SHATTUCK of New Hampshire, said he had tried guano considerably the past year, using it on most every crop on his farm, and generally with good results. He had a peice of land of about two acres which he had always considered worthless. He plowed it up and manured it with guano, quicklime and plaster, and planted with early potatoes, which yielded the best crop he ever had. His manure, which cost $6 per acre, was composed of 130 lbs. guano, 300 of plaster, and 100 of quicklime. The plaster and quicklime were first sown broadcast, and throughly incorporated in the land, and then the guano, mixed with meadow mud, was plowed in, and the ground harrowed thoroughly. The seed was dropped immediately upon the compost. The soil was very dry. He used the lime to dissengage the ammonia of the guano. Mr. SHATTUCK plants his potatoes in a furrow, without hills, on loamy land, and thinks them less liable to suffer by drought, because hills shed the water. The New Hampshire farmer who took the premium at the State Fair for his potatoes, planted them on a flat surface having a mellow soil beneath for the plant to strike its roots into.

The speaker regarded guano as most excellent manure to force crops; and stated that he had a plot of cucumbers which the bugs destroyed two or three times, and it being late in the season he concluded to plant again and force with guano. He mixed guano with lime and put it into the hills covering it and placing the seed upon it. In three days after dropping the seed, with no rain in the meantime, the cucumbers were up an inch, and he had an abundant crop.

Prof. NASH, of Amherst College, said he had applied guano the past year to about a third of an acre of land, at the rate of 200 lbs to the acre, and gathered therefrom a splendid crop of Indian corn, remarkably well filled out, and surpassing that raised on contiguous land manured with bone-dust. He was of opinion that our farmers should avail themselves of all the resources of their farms for manures before purchasing guano. The farm, as a general rule, should be made to fertilize itself. Prof. NASH coincided with the chairman in regard to using green manure; if put immediately into the soil, its operation is very advantageous, because the plant gets the benefit of a large propor-

tion of ammonia, nitrogen and carbonic acid, which would be lost if the manure were suffered to lay over. Plow it in shallow, if the soil is clayey, a little deeper if loamy, and still deeper if sandy.

On motion of Mr. Clark, of Waltham, the subject of manures was continued to the next meeting, when a part of the evening will be devoted to it, and the remainder to "The subdivision and fencing of the lands of a farm."

For the New England Farmer.

THE PEWEE—SOOT FOR PLANTS.

Mr. Editor:—Having seen in your valuable paper an inquiry made touching the birds of New England, I send you the following facts concerning the well known little bird, Pewee, or fly-catcher. About five years ago, I had a pair of these birds. (You will pardon me for calling them *mine*, for they were my songsters and companions, for fourteen years, and left me only when repairs of buildings drove them from their old home.) In the last of March, or first of April, perched on the buildings or fences, will be seen the Pewee, filling the air with his joyful notes. But his stay at this time is only about a fortnight, for he soon gets weary calling "Phebee," for she answers not. If it is fine weather, a journey of twelve or fourteen days will find them at their old home, busy repairing or building their nest.

For eight successive years they built their nest on a sleeper of my barn, within a few feet of each other, and in this time they built four nests, constructing a new one every other year. They repair the inside of the nest after the first brood have flown. The next spring, if the upper edge of the nest gets loose, they repair it, and replenish the inside with a new coating, and do the same after the first brood has flown the second year, so that in eight years they had four new nests, and repaired them twelve times, each nest having been used for four broods.

It takes them seven or eight days to repair a nest. Afterwards they placed their nest in a building over my tanner's beam, and several times changed it to different buildings as I changed my place of work. They would alight on the beam and watch their prey whilst I was near them.

In fourteen years, they reared about *one hundred and twenty young*, for none were destroyed by idle boys, and even old puss seemed to have learned to respect them, as she was never known to catch any. They are very industrious in catching flies, taking from two to four a minute, when they make a business of feeding their young.

SOOT TO DESTROY VERMIN.

I have been informed by a gentleman from England that they pay $45 per load for chimney soot, to spread on their land for the purpose of killing vermin. I wish to know if it is used for such a pupose in this country? Would it not be good to roll corn in before planting?

Respectfully yours, John M. Merrill.
Bristol, N. H., March 4, 1853.

Remarks.—Soot is a capital fertilizer, and is frequently used to kill insects. It is certainly advisable to save it all and apply it in some way to the crops.

For the New England Farmer.

AUTUMNAL MARROW SQUASH.

Mr. Brown,—Dear Sir:—Much discussion has lately arisen, about who first introduced among us this fine variety of squash, which has been received with so much favor, as to nearly shove aside all others. In a letter that I received from Dr. Harris, of Cambridge, dated Nov. 6, 1851, he speaks of this variety, as having been "first described by Mr. Ives, of Salem," who "procured the seeds of it from North Hampton." I think I have heard the same statement from Mr. Ives, himself, whom I know to be a discriminating cultivator of garden vegetables. I have lately been informed by Mr. A. Lord, of Salem, that he grew the first specimens of this squash that were ever raised in Mass. That he received the seeds from Mr. George C. Buxton, of Danvers, to whom *six seeds* came in a letter from South America, *two* only of which produced fruit—these under the care of Mr. Lord. Without presuming to say who is right and who is not, I present such facts as have come to my knowledge; leaving it to those who know more to correct my statements, if erroneous.

Your obedient servant,
Danvers, Feb. 12, 1853. J. W. Proctor.

STOCKHARDT'S FIELD LECTURES.

A capital book, which we commend cordially to every farmer. We like it for several reasons: 1st, Because the doctrines it teaches are true; 2d, Because it is written in a clear, simple style, and can be readily comprehended by those who are not adepts in chemistry; and 3d, Because it places science in its true position. While it claims for it the importance that justly belongs to it, it recognizes the value and the authority of experience. It admits that "the chemist cannot here exert a sovereign sway over fixed invariable quantities, and uniformly continuous conditions," but is as dependent upon soil, climate, wind and weather, as the husbandman himself."

His chapters upon artificial manures, guano and bones, are of great value, and cannot be too highly commended to the attention of all cultivators. Had he been acquainted with the value of barn cellars in the manufacture and preservation of compost manures, we should have learned the fact in his chapter on stall manures and straw. In this respect we think New England farmers have made a step in advance of their Teutonic cousins. We are sorry to observe so great carelessness in the use of numbers, as we have noticed in perusing the book. For instance, on the 154th page, we are told that Saxony contains 7000 inhabitants to a square mile. Being somewhat startled at this, we looked into the matter and find that according to the Saxe Weimar Almanac, Saxony, in 1840, contained 270 to the square mile. Belgium, the most populous country in Europe, contained 365. On the 194th page we are told that one-half an ounce of the best Peruvian Guano, on being burned, leaves only one drachm (30 to 33 per cent.) of

ashes. On the 196th page, we find 2 drachms (from 50 to 55 per cent.) If one drachm is 30 to 33 per cent., 2 drachms must be more than 50 to 55. But every school-boy knows that 8 drachms make one ounce, and that 1 drachm is 25 per cent. of half an ounce. Why then use numbers so carelessly? In the tables, too, in which peculiar care should be used, we notice several great incongruities. We trust these errors will be corrected in future editions, and we are the more desirous they should be, because the book is one of the best that can be put into the hands of the practical farmer.

For the New England Farmer.

OLD PASTURES AND CRANBERRIES.

Mr. Editor:—Having a pasture of several acres situated a mile and a half or two miles from home, that needs plowing very badly, I have thought proper to inquire through your paper, from you or some of your correspondents, the most profitable way to manage it. The land is suitable for rye or corn, and capable of producing large crops of either; containing as it does a sufficient quantity of rich loam interspersed with gravel.

Would it be best to plow it in the spring, purchase some guano, lime or such like manure, (as it is too far to cart barn-yard manure) and plant it to corn; or would a wiser course be, to plow it in August or September, and sow it down to rye or grass. (*a.*)

If the former, what would be the cheapest manure to purchase, and the probable cost and quantity per acre. If it was not thought advisable to plant corn at so great a distance from home, should rye or grass seed be sown without any manure being applied to the land. (*b.*)

Cranberries.—Will some of your correspondents give their experience in, and methods of cultivating the cranberry. Can the cultivation of this plant be made profitable to the farmer? Having several acres of swale land near by, producing but little hay, as the soil is of a mucky nature to the depth of three or four inches, and underneath is a hard pan of clay, I have serious thoughts of plowing up a portion of it and setting out the plants of the upland cranberry; but before doing so, I wish to ascertain whether the soil is adapted to the growth of that plant, and whether I could use the land to a better purpose.

Any information in relation to the above subjects, will be thankfully received by a

Young Farmer.

Remarks.—(*a.*) We have a pasture of eight acres which has been regularly fed for 25 years, until the whole product is not more than what one acre ought to be. The conclusion arrived at after reflecting upon the whole matter, is, that we shall plow it in August, manure a portion with plaster and guano, and sow with rye and grass seed, and let the cows run upon it about the first of June. Another portion with plaster and phosphate of lime, and another with plaster and ashes. Will you do so and let us know the result?

(*b.*) No, you would lose a large portion of your labor of plowing, by pursuing such a course. Better plow less and take good care of it.

You will find scattered through the volumes of the monthly *Farmer*, accounts of cranberry culture. Where you can turn up a white sand by plowing, cranberries usually succeed well. We doubt whether they would in a clay subsoil.

For the New England Farmer.

CORN CULTURE.

Mr. Editor:—In the last volume of the *Farmer* may be found some remarks by me, on the cultivation of corn, at pages 73 and 324. Since that time I have had occasion to change my views, as expressed on this subject, on page 73, Vol. IV., as it regarded planting corn on land that had been planted to potatoes the year previous.

Last spring I planted five-eights of an acre to corn, using eight cords of unfermented manure, composted with muck, according to Mr. Holbrook's directions, page 381, Vol. III., of the monthly *Farmer*, plowing it in to the depth of eight inches, and then cross plowing to the same depth, and then harrowed down smooth, and furrowed out and applied three cords in the hill, making in all eleven cords used. About 150 lbs. of gypsum was put on after the corn was up. The yield was forty bushels. Potatoes were grown on this the year previous. Four cords less of manure were on the five-eights of an acre, than were used on the acre and a half the year previous, yet the yield was 15 bushels the most on the five-eights.

Now I attribute this to two causes. First, the manure was put on in a sufficient quantity to be felt by the corn the whole season. The decomposed manure gave it a start the first of the season, and the last part the green manure did its work in producing a crop. The second I attribute to the deeper plowing, one being six and the other eight inches. Of the benefits of deep plowing I need not speak, for they have been so clearly pointed out in the *Farmer* for the last two years, that all who have read it need nothing but facts to be able to see the good effect at a single glance.

Yours for the cause of agriculture,

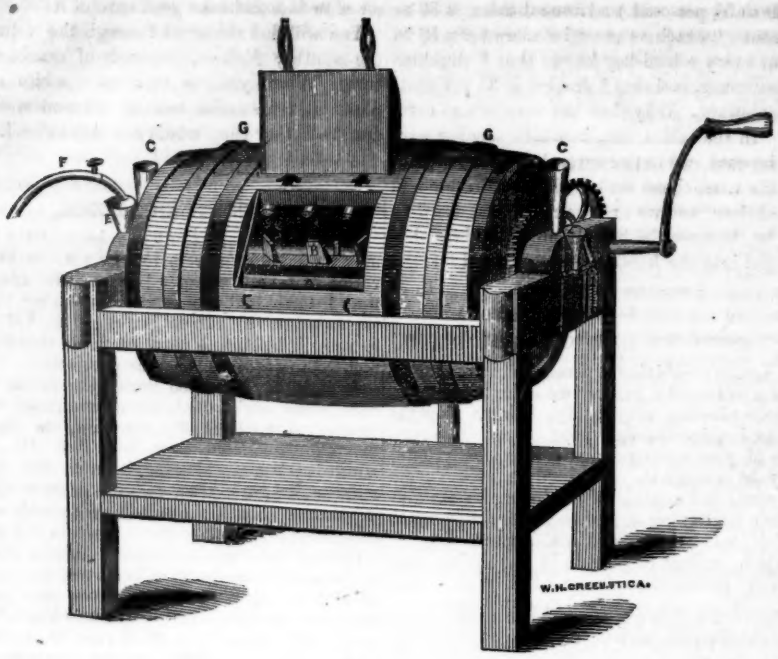
S. Tenney.

Lewiston Falls, March 7, 1853.

Mass. Horticultural Society.—Through the attention of E. Wight, Esq., Corresponding Secretary of the Society, we have before us the *schedule of prizes* offered for 1853, as follows:

Prospective prizes	$750
Gardens, Greenhouses, &c.	200
For Fruits	620
Plants, Flowers and Designs	750
For Vegetables	250

Making in all the handsome sum of $2,520,00. The prospective prizes are for objects to be originated subsequent to the year 1846, and which, *after a trial of five years*, shall be deemed equal, or superior, in quality and other characteristics, to any now extant. Many of our citizens are scarcely yet aware of the high degree of pleasure and profit they may derive from a connection and more intimate acquaintance with this excellent association.



CLARK'S EXCELSIOR CHURN.

We know nothing of this churn from personal experience, but as it is spoken highly of, and has the appearance, in itself, of being a useful article, we give the inventor an opportunity to explain the machine himself.

A is the rotating or revolving body, worked by crank and gearing, as shown, or it may be attached to any motive power by passing a band directly on to its raised hoops G G. Two or more large churns can thus be driven in one frame, by passing a short band from the first cylinder to the second, and from that to a third, &c., thus affording facilities for churning any quantity of milk and cream, together or separately, at one operation. By a new and simple device, the body is easily made water tight at its lid and bearings on the fixed or permanent axles. The cross bar or dash is a narrow wooden bar, placed longitudinally above the centre of the barrel or body, with projections B on its upper edge, extending upward to the priphery, at any desired angle. Pins inserted in two side staves of the cylinder, pass between the projections on the cross bar, which is removably attached, or supported by iron braces, to the axles on which the body rotates or revolves. The axles are hollow, with ventilating funnels C C set in the blocks and extending downward into their cavities. By closing the outward ends of the axles, a perfect ventilation of the cylinder is effected, even when filled above the place of its axis. The cavities of the axles permit the crooked water tubes E E to be passed through them, to be inserted in the corked ends of the small metalic cylinder in the centre of the churn. Through these tubes, (which close by their flanges, the outward ends of the axles, and being of less diameter than the cavities, so as not to obstruct the ventilation,) a stream of cold water can be kept running; the water passing down the outward injecting funnel through the tube, filling the tempering cylinder, (the small tube on the cylinder should be corked after the air has escaped,) and passing out at the waste pipe. These need only be used when tempering is necessary, and where running water cannot be applied, a few pails from the well will reduce the temperature sufficiently. A thermometer may be used to ASCERTAIN THE TEMPERATURE OF THE WATER at the waste pipe, which will indicate directly milk or cream. The cross bar, tempering cylinder and tubes, can all be removed from the barrel of the churn, thus leaving nothing but the empty cylinder for cleansing

The EXCELSIOR CHURN is not designed merely as an improvement on any other patent churn. It is in fact different in construction and operation from all that have preceded it, consequently the objections which may be made in reference to other churns, will in no sense apply to this. The proprietor having had many years exprience in a large dairy, professes to know what dairymen need, and what they require in a perfect churn. It is necessary that milk and cream should be kept below the temperature of summer air, both before and during the operation of churning, certainly as low as 62°. The Excelsior Churn will do this. The running water will not only reduce the temperature in passing through the metalic cylinder, but it will also take away all of the ANIMAL HEAT from new milk, and also the ELECTRICITY from the fluid,

whether it be milk or cream, to be churned. The scientific dairyman will understand this. The result is an increase of the PRODUCT, while the peculiar action of the churn, in bringing all of the fluid within the resistance of the dash or cross bar, adds at least one pound in twenty to the QUANTITY of good marketable butter.

BENEFITS OF ASSOCIATED EFFORT.

[Remarks of the Hon. J. W. PROCTOR at the Agricultural Mass Meeting at Concord, March 10, 1853.

The notice of the meeting of farmers of Middlesex to be holden *at this time, at this place*, awakened in my breast the liveliest desire to be present, and to be instructed thereby. Where the ball of freedom received its first impulse, *eighty-seven years* gone by, seemed to me a place peculiarly appropriate to start anew in the march of agricultural improvements. It is fit, that Middlesex, the first born of the Massachusetts family, fourteen in number, should call this family meeting, to greet each other, and consult for the common good. There are no jealousies or bickerings to disturb our harmony. There is no occasion for any one, to crowd upon any other. The field is broad enough for all, and the crop is ready for the harvest. All have the same purpose in view. It is meet therefore, to consult together, how this purpose can best be accomplished.

While we the children are looking about to see what is the duty incumbent upon us, we must not forget the mother of us all—*the Massachusetts Society for promoting Agriculture*—who although stricken in years, still gives evidence that the vigor of youth flows in her veins. In the annals of this society, will be found much wisdom. When perusing the pages put forth by Lowell, Pickering, and their associates, I have often doubted whether we were advancing in improvement so rapidly as we profess to be. Fortunate will be the man who can write better *essays*, or make better *speeches*, than those men made *fifty years* ago. I have had communication with many farmers, and many men, who professed to have knowledge of agricultural science, but I frankly admit, that I never met the man, who so clearly comprehended the reason for what he knew about the cultivation of the earth, as TIMOTHY PICKERING.

Who does not remember the hints that appeared every spring, on the pages of the *Columbian Centinel*, from the pen of the Roxbury farmer. Plain and simple in their character, but still of great value in their consequences. These were among the first lessons in agriculture I ever learned. I remember with what interest I used to look for them, and how my father used to read them, and compare them with his own experience and observations. Instance the time of flowering of fruit trees; the temperature about that time; the prevailing winds; and many other accompanying circumstances; and hence, an inference was drawn, as to the prospects of the coming season. By such habits of observing and recording, the experience of many years is concentrated in one, and useful lessons of instructions are accumulated. In fact, the difference between a wise man, and one not wise, consists in the accumulation and concentration of small facts. "Many a little makes a mickle," as is the proverb;—which expresses more truth than elegance. The laws of the seasons change not. Who does not remember, when the drift of snow used to form across the way, when he was a boy, on his route to school; let him go there now, after a drifting northeaster, he will find the same position, blocked in the same manner. So in the vegetable economy, the laws of origin and progress are alike unchangeable. A careful observation of these, will guard against many a mistake. The farmer needs "line upon line, and precept upon precept." For this purpose, farmers should come together and compare their notions. The interchange of views, rules asperities, and corrects absurdities. Let a person be once put down, in inculcating false notions, and he will ever afterwards be more careful in his remarks—or if not they will soon cease to command attention. There are many *notions* abroad in the world, which need only to be *exposed*, to be *scouted* and *despised*.

To illustrate the benefits that may accrue from the meeting of farmers, and familiar interchange of ideas, allow me to refer to a farmer's association formed in my own town, before agricultural societies had much come into being, in 1809 or 10, I think. A series of questions was propounded to them by the State Society, such as were forwarded to many other towns of the commonwealth, and each member was required to bring in his own experience, that correct answers might be returned. At this time, being a boy, and ready in the use of the pen, I remember to have been employed by my father, himself an observing farmer, to arrange and copy these answers, to be returned to Boston. I felt honored by the commission. I cannot doubt that the impressions then taken gave an impulse to my mind in favor of the employment of the farmer. I have only to regret that it had not been *sprung* to such a degree as never to have been diverted. For after more than *forty years* observation of men and things, I am free to say, that the man who starts in life with a determination contentedly to devote his energies to the culture of the soil, free of ambition, of official distinctions of every kind, takes the wisest course. In this free country, where every man can readily acquire a title to the soil he tills, such employment will surely succeed; provided he has the discretion to graduate his expenses according to his income. And no employment will succeed, without this limitation. Thus managing, at the age of *fifty*, he will be found comfortably situated on his own farm, with a lovely family around him; made vigorous and happy by the same labor that has afforded the means of living. What position can be more desirable? Well did the Roman poet exclaim—"O, too happy farmer! did you but know the enjoyments at your command."

A few years since, Simeon L. Wilson, of Methuen, (I believe he is not living now,) sent in his statement to the committee on farms of the Essex Society; which, when the facts came to be known, awakened much interest. It appeared, that this cultivator of the soil had been a cripple from his youth, with no command of his lower extremities whatever, and only able to move from place to place, as moved by others, or in the little go-gig that his ingenuity had constructed. He had come into possession of about an acre, of what was deemed a *worthless bog*, situated by the side of the way—for years claimed by no one,—and had contrived to drain it, and cover it from the adjoining knolls, so that he grew thereon, a nursery of more

than 12,000 fruit trees, and a variety of fruits of fine quality in considerable abundance. In fact, he so managed it, as to be able to sell enough to support himself and his mother, from the products of this reclaimed acre; thereby saving the town more than $100 a year, to which they would otherwise have been properly subjected. In the close of his statement, he exclaims with devout reverence of that Providence which had so greatly favored him,

"I am monarch of all I survey;
My right there is none to dispute."

Who will say that this humble cripple did not sleep as soundly and enjoy as much as does the monarch of all the Russias?

In my reference to the association of farmers at Danvers, the point I intended chiefly to illustrate, was the benefits that accrued to the farmers themselves. Each thereby became informed of the more successful operations carried on around him, and the means whereby they were brought about; and having learned these, he would no longer be *delving on* in the old way, realizing only half as much as his neighbor. A man will work contentedly when he does not know that others are doing better than himself, but when he does, he soon becomes uneasy. No man will be content to grow but thirty bushels of corn to the acre, when by the same exertion properly applied, he could secure fifty. Does not this illustration explain the condition of the farmer in Massachusetts at the present time? Has it not been again and again demonstrated, that on lands of only moderately good quality, more than fifty bushels of corn to the acre can readily be grown? Why then should the farmer be content with their present crop, of this indispensable grain, averaging at present little more than thirty bushels to the acre? What is true of this crop is applicable to most others.

Let me illustrate the position I have taken, by reference to the farm of Mr. J. D. BROWN, of this town, the interesting account of the cultivation of which has lately appeared in the admirably arranged pamphlet of the Middlesex Society; and which if I mistake not, commanded the first premium of this society. Does not this show his crops to have more than doubled in a very few years—and this under a mode of culture that brings its own reward? I know there may be a hot-bed growth—that costs more than it comes to—but such cultivation cannot be approved. What is wanted, is a mode of culture that yields fair crops, and at the same time, leaves the grounds in improved condition. Another instance is to be found in the same book, on Mr. WHEELER'S farm of forty acres, which, if I understand his statement, has been made to yield a nett income of $20 an acre, for the whole farm—that is, an income of $800 a year from a farm of forty acres. Now, sir, apply $300 of this to contingencies, you will have $500 left, which is double the amount usually realized by cultivators of the soil. I have purposely referred to these home illustrations, in Middlesex, because, if I am wrong, there are those present who will correct my errors. Though I could refer to instances of the culture of vegetables in Essex, that would go far ahead of the samples mentioned.

Whoever reflects upon the *tenure of the soil* in Massachusetts, as well as in most of the N. E. States, cannot but be impressed with the influence of this *tenure* upon its *culture*. To ensure successful culture, "the tiller of the soil should have an interest in the soil he tills." What inducement has the tenant-at-will to make improvements? Possibly, his landlord may not advance his rent in proportion to the improvements made; but *three chances out of four*, this will be done. Adam Smith says, in England, the tenant has for his labor, the *smallest fraction* whereby he can live—and whoever suspected Yankee landlords of being more generous than Englishmen? Generosity is not a marked trait of character, in this land, in those who hold the title to large possessions. Generally, it is found in the *inverse ratio* of their possessions. I would sooner hope for a favor from the honest laborer, who earns a support for his family and himself by his daily toil, than from the conceited proprietor of many acres, who lives by the industry of others. In this free country, no man is fit to live, who is not willing to work for a living.

It was sagaciously remarked, by the late John Randolph, of Virginia, "The time will come ere long, when masters will run away from their slaves, and be advertised in the newspapers."

This wise saying was based on the fact, that those who tilled the soil in Virginia, and other slave-holding States, had no personal interest in the soil they tilled. How important then, so to advance the conditions of every efficient laborer, that he may entertain the well-founded hope of being *an independent free-holder*, and of leaving to his children and children's children, the direct benefits of his *labor!*

LEGISLATIVE AGRICULTURAL MEETINGS.

NINTH MEETING—TUESDAY EVENING, MARCH 22, 1853.

The ninth meeting of the season was held at the State House on Tuesday evening, Mr. BROWN, of the *Farmer*, in the chair.

The subject of the "*Preparation and Application of Manures*" was taken up, and continued through the evening.

Mr. BROWN, upon taking the chair, alluded to a report of discussions in the *New York Farmer's Club*, strongly corroborative of the remarks made by him at the last meeting in regard to the waste of manures. It appeared by statements made by Mr. ROBERT L. PELL, of Ulster Co., that the nitrogen contained in the excreta of one person would grow, in combination with the aid of the ammonia, phosphates and sulphates obtained from the atmosphere, 800 lbs. of wheat per year—at which rate the population of Boston (15,000) might furnish sufficient to raise 120 million pounds of wheat yearly. Add to this a small quantity of ashes and bone dust, and with the natural resources of the farm we could bring up our lands to an amazing degree of fertility. Mr. Pell stated that he had put 40 cords of cattle manure on an acre of land, costing $80. By removing the liquid from the ordure, and using the nitrogen only, sixteen pounds, worth fifty cents, would be of equal benefit, and $80 worth of this latter would enrich 160

acres. The solid and liquid manuring substances produced in factories of various kinds in our cities, with the sewerage, &c., is equal to one ton for each inhabitant. Allowing the same calculation for Boston, it would give 150,000 tons per annum. In addition to this, 150,000 tons of street dirt, ashes, &c., might be saved every year, the whole furnishing valuable fertilizing matter worth at least $150,000. Mr. PELL suggested the erection of reservoirs, with buildings over them, at the terminations of the sewers, for the purpose of collecting the rising gases, and crystalizing them by chemical process for agricultural purposes.

Mr. CLARK, of Waltham, read extracts from several letters from gentlemen in the Southern States, going to show the value of guano both as a temporary and permanent manure. Mr. Clark entered into a calculation of the comparative cost of dressing an acre of land with guano and with manure. 20 loads of manure are about 6 cords, which at $7 per cord, amounts to $52. This would manure, not very heavily, one acre. 300 lbs. of guano will manure about equally with 6 cords of manure, and at $50 per ton, would cost $7,50. It therefore costs $42 to dress an acre with barn-yard manure, and only $7,50 with guano —leaving a difference in favor of the latter of $34,50. And if the expense of applying the two is taken into the account, the difference will be still greater in favor of guano. It is said that guano is not so permanent in its effects on the soil, but this is not so certain. Experiments have not yet been made on a scale of sufficient magnitude or accuracy to test this point thoroughly. Many experiments, if they can be relied upon, prove that the effects of guano are as lasting as those of manure. Mr. Clark thought that it might be used with very great advantage.

Mr. FRENCH, of Braintree, made some remarks in relation to the great attention paid to the subject of manuring in Europe. In Great Britain he said, $300,000,000 worth of fertilizing mattere are used annually. He considered it a very important matter that measures should be taken to secure the benefit of the vast amount of manure which is wasted annually in our cities and about our farms. The occasional failure of guano, he believed—was owing to a misapplication. He related a case of some gentlemen who bought up a lot of extremely poor land, paying only one dollar per acre for it, which they manured with guano, and the first year cleared the land, paid all the expenses of cultivation, and had a surplus besides, as the result of the operation. This he believed was owing to a judicious application of the guano, a point on which we are without accurate information, and which is much needed.

Mr. WALKER, of North Brookfield, inquired if Mr. FRENCH had had any experience in applying guano to pastures or grass lands. He thought if guano could be advantageously applied to pasture lands it would be a great benefit to the commonwealth. In Worcester counnty, for instance, there were pastures that had been used for 150 and perhaps 200 years, without being replenished, owing to the expense and difficulty of conveying barn-yard manure on to the hills.

Mr. FRENCH replied that he had had no experience in applying guano to pastures, but had used it on grass lands with decided benefit. He pulverized it and spread it broadcast in June, while raining gently.

Col. FAULKNER, of Acton, expressed the opinion that one-quarter of the value of barn-yard manure was wasted by the manner in which it was put out. He conceived the best plan to be to heap it up before warm weather, covering it up closely, by putting sawdust or plaster over it, which will prevent the fertilizing gases from escaping. He believed that this process brought it into a form nearly akin to guano, and he thought made it almost, if not quite, as valuable. If guano were treated in the way the bulk of our domestic manure is, it would be worth no more than that is. He believed that manure plowed into land in a green state lost one-fourth of its value by the working off of its nutritive gases. He considered the great cause of sterility in pasture lands to be in overstocking them, by which the grass blades were fed too closely. Grass blades which were apparently dead nearly to the roots in the fall, renew themselves very rapidly in the spring, becoming perfectly green in a few days of favorable weather. Hence, if not fed too closely, a pasture will maintain its vigor and fertility for many years.

Mr. CLARK, of Waltham, said, that having a very unproductive pasture, he took half a ton of plaster of Paris, and spread it on ten acres; and during the whole season he could see a great difference between that part of the land which received the plaster, and that which did not.

Mr. FRENCH thought the case must be an exception. He did not think plaster would be applied with advantage on lands near the seacoast. It may do better at a distance from the sea breezes, where the cattle need saline matter. But the Shakers at Canterbury, say that plaster has no effect on their land. If any one was disposed to use it he would advise the trial of a small quantity at first, as he considered its use of very doubtful expediency. We read that lime is an excellent article; he had heard of an instance where a man bought 200 casks, which he put into his barn-yard and his hog-pens, and the result was, it smelt very strong, which led him to anticipate great benefit from its use; but he was in error, for the valuable qualities were passing off, and he probably lost all his lime, and all his manure. These mistakes are continual; and we shall not get right till

we have some farm where experiments can be tried, which people can visit and ascertain the results. Individuals cannot do this work.

Mr. EMERSON, of Boston, inquired the effect of plaster on pasture lands covered with moss.

Col. FAULKNER replied that on a pasture more than a hundred years old, covered on the north side and on the top of the Indian hills with white moss, he had applied plaster and brought the land into clover the second year. It also eradicated the red moss on the low lands, and the hardhack was also gone, which he attributed to the action of the plaster.

Mr. WALKER said the effects of plaster could not always be seen the first year. He had used it three successive years on a piece of land, and did not perceive any considerable result from it until the third year.

Rev. Mr. TRASK, of Fitchburg said that plaster, if applied under the earth, would in his opinion, be of great benefit. He had tried it on land some 60 or 70 miles from the seacost with good success, particularly on potato crops, and believed that it might be applied with success near the seaboard, if we could only obtain the *rationale* of the matter, so as to use it intelligently.

Mr. BROOKS, of Princeton, made some remarks in relation to guano. He said he did not think that farmers generally could afford to purchase foreign manures, but should get a full supply from their own farms. He did not believe that farm manures would cost the farmer so much as guano. He thought that 25 per cent. of the products of a farm could be sold, and then leave sufficient to keep it in a fertile condition. He made all his own manure, and kept a year's supply always on hand. If a man sells all his crop he must buy manure. It will pay in extensive farming near cities, but not in extensive farming away from them. The gentleman considered the criterion in using plaster to be, whether the land will produce clover. He applied about 100 pounds to the acre. Mr. BROOKS related a course he had pursued with green manure in raising cabbages. He took 4 bushels of green cow offal, 4 bushels peat muck that had laid a year, one bushel of ashes, one bushel of hen manure, and half a bushel of plaster. He put it on 800 plants and raised 800 heads of fine Savoy cabbages weighing 3 to 8lbs. each. It operated exceedingly well.

Mr. COLLAMORE, of Pembroke, had seen plaster applied with effect, and thought more depended on the soil than on the location. In Plymouth county no effect is seen from its use except on potatoes. Farmers there think it does not pay to apply plaster to their lands.

Mr. SMITH, of Hadley, said he had used plaster for a great many years. Applying 100 lbs. to the acre for a few years he found to produce a sensible effect, but when continued for a series of years without other manures it loses its efficacy, and it becomes necessary to apply animal or vegetable manures.

Mr. FAULKNER said he found the use of plaster to produce the same effect from year to year. In Framingham he had known it to be applied for fifty and seventy years with good effect. He said he had commenced using oyster shells upon his land, grinding them somewhat coarse. He applied them to cabbages with excellent effect, putting half a gill around each plant. He also found it a complete protection against bugs on his squash and cucumber vines.

Mr. EMERSON, of Boston, offered some remarks in relation to preserving the gases of manure, and at the same time protecting cattle from breathing its noxious exhalations, and hay from becoming scented by them. He detailed a plan, to dig a pit under the back side of the barn, into which to throw the manure, the pit being made and kept tight, with a pipe or box leading to the ridgepole of the barn to convey off such gases as must find vent.

The meeting adjourned at half-past 9 o'clock.

AGRICULTURAL BOOKS.

Below we give a list of agricultural books published by C. M. SAXTON, N. Y. These are only a small portion of the excellent works issued by that enterprising publisher. They are the exponents of other men's minds, and embody the experiments and practices of persons distinguished alike for their knowledge and successful operations in the matters of which they treat. We recommend one or all these books to every farmer in the land. All farmer's clubs should have them.

	PRICE.
The Complete Farmer and Gardener	$1,25
Johnston's Agricultural Chemistry	1,25
The Progressive Farmer, by Prof. Nash	50
The American Muck Book	1,00
Rural Architecture	1,25
The Young Gardener's Assistant	1,50
Fruits and Fruit Trees of America	1,25
Rogers' Scientific Agriculture	75
Farmer's Companion, a most excellent work by Judge Buel	75

ALLEN ON THE GRAPE VINE.

The inquiry was made of us the other day, "Where can a good treatise on the grape vine be found?" We find on our table this morning, a beautifully printed work with the following title: "A practical treatise on the culture and treatment of the Grape Vine, embracing its history, with directions for its treatment, in the United States of America, in the open air, and under glass structures, with and without artificial heat. By J. FISK ALLEN. C. M. SAXTON, Agricultural Book Publisher, 1853. Third edition—enlarged and revised." This is just the book which every person needs who wishes to attend to the cultivation of grapes. Beside this, it is a comfort to read Mr. SAXTON's books, because they are printed in the

right form, and have such large and clear type. It is also handsomely illustrated, and has *a good index!*

For the New England Farmer.

CONCORD FARMERS' CLUB.

At the meeting on the evening of Feb. 24th, the subject for discussion was farming implements. SIMON BROWN, Esq., gave a very interesting historical sketch of the origin of the plow, and of the gradual improvement in the mechanism and construction, from the earliest plow used on the banks of the Nile, down to the beautiful and polished instruments in use at the present day. This sketch was illustrated by 10 plates, drawn for the purpose, exhibiting the forms of various Egyptian, Grecian, Roman, Italian, Saxon and American plows. The first was a simple crotched stick bound by willow thongs to a rough beam. There were plows with coulters and without them—with mouldboards and without them, with wheels and without them. His remarks upon the progress of mechanical skill manifested in their structure, and upon their capacity to answer the purpose for which the plow is designed, were instructive as well as entertaining, and indicated a thorough knowledge of the whole subject. There was matter enough in a condensed form, in the remarks which he made, to make a most interesting lecture of an hour long. And the wish has been expressed by more than one member of the club, that he would expand his material into a lecture for the benefit not only of the Concord Farmers' Club, but of all other agricultural associations, that may be so fortunate as to secure his services.

J. REYNOLDS, M. D., *Sec.*

For the New England Farmer.

BONE WENS.

MR. EDITOR:—I wish to inquire through your paper if there is any cure for the bone wen, so called, that grows on the under jaw of cattle. I had to nearly sacrifice a valuable heifer last fall in consequence of one of them, and one of my neighbors now has a cow which he will probably have to lose. If any of the readers of the *Farmer* know of a remedy that they have tried and found to be effectual, they will confer a great favor by making it known, as it may be the means of saving many a valuable animal. J. A. S.

Colebrook, Ct., 1853.

COOKED FOOD FOR COWS.—Mr. James S. Hubert lately stated before the Philadelphia County Farmer's Club that he had proved by actual experiment in feeding 12 cows 180 days upon cooked food, that he made a net gain of $32. In place of 20 lbs. of hay per day, formerly fed raw, he now feeds 12 lbs. cut and steamed. With this he mixes 4 1-2 quarts of shipstuff, Indian corn meal and oil cake meal, in about equal portions. This with the hay, weighs about 46 lbs. when cooked, having gained 21 lbs. by that process. He says it is not only more economical, but more palatable to the cattle; they eat without waste and keep in better condition. His steaming apparatus cost $25, which he more than saved in six months feeding. He considers however, the greatest gain is in the health of the animals.—*N. Y. Agriculfor.*

Ladies' Department.

HOW TO TOAST BREAD.

Chesnut brown will be far too deep a color for good toast; the nearer you can keep it to a straw-color, the more wholesome it will be. If you would have a slice of bread so toasted as to be pleasant to the palate and wholesome to the stomach, never let one particle of the surface be charred. To effect this is very obvious. It consists in keeping the bread at the proper distance from the fire, and exposing it to a proper heat for a due length of time. By this means the whole of the water may be evaporated out of it, and it may be changed from dough, which has always a tendency to undergo acetous fermentation, whether in the stomach or out of it, to the pure farina wheat, which is in itself one of the most wholesome species of food, not only for the strong and healthy, but for the delicate and diseased. As it is turned to farina, it is disintegrated, the tough and gluey nature is gone, every part can be penetrated, it is equally warm all over, and not so hot as turn the butter into oil, which, even in the case of the best butter, is invariably turning a wholesome substance into a poison. The properly toasted slice of bread absorbs the butter and farina are in a state of very minute division, the one serving to expose the other to the free action of the gastric fluid in the stomach; so that when a slice of toast is rightly prepared, there is not a lighter article in the whole vocabulary of cookery.—*Household Almanac for* 1853.

FEMALE WOMEN.—We respect, admire and love a female woman. We admire her in the beauty of her person, her moral presence and position; we respect her simple truthfulness and innocence, and we love her as the embodiment of the highest charms and sweetest attributes of humanity. But a male woman, who can bear! We cannot read of monster meetings, in which women perform the leading parts; of lectures on the subject of marriage, to promiscuous audiences by female tongues, and of the perambulating female spouters who go about the country, without an involuntary emotion of disgust. Many of these women are mothers, who have families of tender age at home, and husbands who should have tender heads. Home duties forsaken, and the misguided mistresses go about teaching other people *their* duties! What comfortable wives they must be! What kind and assiduous mothers! How they must hallow a home that is too small to hold them! Gods of War! We would as soon live with a hyena or a steam engine. Don't come this way, we beg of you.—*Springfield Republican.*

Boy's Department.

HOW TO MAKE CRAYONS.

Every school-room has, or should have, blackboards. On these, chalk is almost universally employed. There are many objections to the use of chalk, not the least of which is, that after a problem is performed, the finger and clothing presene a *dirty white* appearance. Crayons are far preferable. Could they be generally employed, it would be a favor done to some delicate hands,

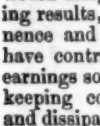
to say nothing of a large amount of wearing apparel.

White crayons may be made of Paris white, or Spanish white, which are nearly the same, and wheat flour and water. The correct proportions are five pounds of Paris white, one pound of flour, and sufficient water to make a dough of these materials, hard enough not to crumble, and soft enough to roll. Little balls of this are then rolled out into cylinders about the size of a pipe-stem, and laid away in a warm place, or in the sun, to dry; the drying will generally require from twelve to twenty-four hours.

The process of rolling may be performed upon a table, or any flat board. This process will be expedited somewhat, and the crayons be of a more equal size, if a rolling-board be employed; which is simply a strip of board, say a foot in length, and eight or ten inches in width, with a handle on the top, and with the edges upraised about a third of an inch in thickness on the side of the lower surface, on which it may slide back and forth, as the crayons are rolled. With an apparatus simple as this, crayons may be made with great rapidity and cheapness. Every school contains some lad possessing skill enough to manufacture them with ease. The expense is trifling, scarcely greater than that of chalk, while it is far superior.—*Massachusetts Teacher.*

Save your Earnings.—The practice which apprentices, clerks, and others, have of spending their earnings as fast as they accumulate, is one great reason why so many never attain a position above mediocrity in life. A person who receives but a small compensation for his services, will with a little care over his exchequer, and a system of regularity in his expenditures, find that at the end of the year he is prepared to encounter any emergency or mishap. But, as a general thing, they manage to get rid of their earnings quite as quick as they are due, thus leaving them wholly unprepared for emergencies, by sickness or otherwise. A system of curtailing unnecessary expenses, if adopted by our younger folks, would bring around the most happy and gratifying results, and be the means of raising to eminence and standing in society, many who now have contracted the habit of parting with their earnings so readily and foolishly—for the habit of keeping continually in debt, begets indifference and dissipation, a lack of self-respect, and an utter disregard for future prospects. The real cause for a great deal of crime may be traced to the habit of a foolish expenditure of money in early days.—*Albany Transcript.*

Farm to be Let.



That well known farm in the southerly part of West Cambridge, called the "Perry Farm." It consists of about 100 acres, divided into orcharding, tillage and pasture, and is at present cultivated as a milk and fruit farm. The buildings, &c., are sufficient and in good order.

For terms and particulars, please apply to WM. MAPLESDEN, on the premises.

Feb. 26. tf

Bound Volumes.

Back volumes of the NEW ENGLAND FARMER, elegantly bound in Muslin, Gilt and Embossed, are now for sale at this office.

Advertising Department.

☞ A limited number of advertisements of an appropriate character will be inserted in the monthly Farmer at the following

RATES.

For one square of 15 lines, one insertion.....$1,00
For each subsequent insertion.....50

☞ The above rates will be charged for all advertisements, whether longer or shorter.

A. L. Bingham's Third Annual Sheep Shearing Festival.

The undersigned gives notice that he will hold his Third Annual Sheep Shearing Festival, at the well known resort of James K. Hyde, in Sudbury, Rutland County, Vermont, on the first and second days of June next, commencing at ten o'clock A. M. He proposes to shear publicly, from fifty to one hundred French Merino Ewes, with a view to enable all interested in this branch of production, to see and judge for themselves of the weight and value of these sheep as compared with others. All wool growers, and manufacturers are respectfully invited to attend. Several very superior Bucks and Ewes, of the best French importations and stock, will be on exhibition and for sale. A number of gentlemen largely interested in the celebrated Black Hawk and other Morgan Horses, have signified their intention to avail themselves of the occasion to exhibit a splendid collection of the best horses in Vermont.

A. L. BINGHAM.

West Cornwall, Vt., April 1, 1853.

Garden Seeds.

We respectfully solicit the attention of purchasers of GARDEN SEEDS to our extensive stock, which we offer for sale. We have all the sorts of Vegetable Seeds that have proved worthy of cultivation; also, Grain, Grass and Flower Seeds. All the varieties are raised and selected expressly for our trade, and we do with confidence recommend them to all who desire to procure seeds that will prove true to their names.

☞ Catalogues gratis, on application.

RUGGLES, NOURSE, MASON & CO.,
Jan. 1. Over Quincy Market, Boston.

Clover and Grass Seeds.

Northern Herds Grass.
Western Herds Grass.
Northern and Southern Red Top.
Northern, Western and Southern Red Clover.
White Dutch Clover.
Orchard Grass.
Kentucky Blue Grass.
Fowl Meadow Grass, &c. &c.

All of the growth of 1852, and of best quality. For sale by

RUGGLES, NOURSE, MASON & CO.,
March 26, 1853. tf Over Quincy Market, Boston.

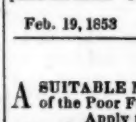
Bridgewater Nurseries.

The subscriber offers for sale, cheap for cash, a large assortment of Fruit and Ornamental Trees, Shrubs, Roses, *Herbaceous and Greenhouse Plants*, Currants, Quince, Strawberries, Gooseberries, Raspberries, Grape Vines, Bulbous Roots, and Hedge Plants. Everything in the nursery line will be supplied upon short notice. All orders promptly executed.

EBENEZER GAY.

Bridgewater, March 26, 1853. 3w*

Hens, Turkeys and Geese.



The subscriber offers for sale a few pairs of the following choice breeds of poultry. White and Buff Shanghaes, Gold and Silver Spangled Polands, Bolton Gray and Black Spanish; also, Virginia Turkeys, and Bremen Geese. These fowls are of the purest blood, most of them being bred from stock recently imported, and very handsome. They will be sold low if applied for soon. For further particulars, address post-paid,

H. H. LITTLE, East Marshfield.

Feb. 19, 1853 tf*

Wanted,

A SUITABLE MAN AND WIFE to Superintend the affairs of the Poor Farm, in the town of Concord.

Apply to the Overseers.

March 26, 1853.

AGRICULTURAL
WAREHOUSE AND SEED STORE,
QUINCY HALL, OVER THE MARKET, BOSTON.

THE Proprietors having recently enlarged their Warehouse, and increased their works at Worcester, would respectfully invite the attention of Planters and Dealers in AGRICULTURAL & HORTICULTURAL IMPLEMENTS, GARDEN and FIELD SEEDS, &c., to their stock, comprising the largest and best assortment to be found in the United States, which are offered at low prices.

Of PLOUGHS—we have the greatest variety of kinds and sizes.

Improved Sod Ploughs, for flat furrows—improved Scotch Ploughs for lapped furrows—improved Stubble Ploughs, which are especially adapted to deep tillage, or varying from 6 to 12 inches in depth.

Self-sharpening, Hill Side, Sub-soil, Double Mould, Corn, Cotton and Rice Ploughs.

Cylinder Hay Cutters, Smith's Patent Lever Gate, and others. Patent Corn Shellers, with and without Separators. Seed Sowers, of various sizes and prices. Batchelder's patent Corn Planter, improved. Fanning Mills of various sizes. Horse Powers, Threshing Machines, thermometer Churns, Robbins' patent Centrifugal Churn, Cylinder Churn, Dash Churn, Corn Planters, together with almost every article wanted on the Plantation, Farm or Garden.

Illustrated Catalogues sent gratis on application, post paid

RUGGLES, NOURSE, MASON & CO.

Boston and Worcester, Mass., Jan. 1, 1853 tf

Highland Nurseries, Newburgh,
NEW YORK.

A. SAUL & CO., in inviting the attention of their *patrons* and the public in general, to their very extensive collection of *FRUIT AND ORNAMENTAL TREES, SHRUBS, &c. &c.*, would respectfully inform them that the stock which they offer for sale the coming spring is unusually fine, both as regards quality of trees, variety of kinds, &c., &c.

The soil and climate of our Hudson Highlands have rendered proverbial the success of the trees sent from here to all parts of the union, and the accuracy and precision so indispensable in the propagation of fruit trees, for which this establishment has long been celebrated, render errors in nomenclature of rare occurrence.

They have propagated in large quantities, all the *leading standard* varieties, which are proved best adapted for general cultivation, especially those recommended by the American Pomological Society; as well as *novelties* of both *native* and *foreign* origin.

To particularize within the limits of an advertisement would be impossible; they refer to their general catalogue, a copy of which will be sent to all *post-paid* applicants, on enclosing a post office stamp.

The following comprises a portion of their stock, and are all of fine growth, viz:

Pears in over 400 varieties, both standards on their own stock for orchard culture, and on the Quince for Dwarfs, Pyramids, and Quenoucle, for garden culture.

Apples in over 300 varieties, both standards and dwarfs; also, Cherries, both standards and dwarfs; Plum, Apricot, Peach Nectarines and Quince trees in every variety.

Grape Vines, (both native and foreign, for vineries;) also, Gooseberries (50 best Lancashire varieties)

Currants, Raspberry and Gooseberry plants of all leading and known kinds, together with Seakale, Asparagus and Rhubarb roots.

Ornamental Trees, Shrubs and Vines, both deciduous and evergreen, suitable for street and lawn planting, embracing all the new and rare Conifers, Weeping Trees and Shrubs of recent introduction.

Roses in every variety, including Hybria perpetual, Hybrid Bourbon, Hybrid China, Hybrid Damask, Prairie, Boursalt, Ayrshire, and other hardy climbing and garden varieties, as well as the more tender, Tea, China, Bengal, Bourbon, and Noisette varieties.

Herbaceous plants, a large collection of Pæonies, Phlokes Companula, Penstemon, Œnothera, &c., &c.

Dhalias and bedding plants for the parterre and flower garden, in large quantities and variety.

Hedge Plants, 100,000 Buckthorn and Osage Orange Plants, two years growth, Arbor Vitæ for screens, &c., &c.

Dealers and planters of trees on a large scale will be dealt with on the most liberal terms.

Newburgh, Feb. 26, 1853. 2m

Grafting Wax,

A FIRST-RATE ARTICLE, made by an experienced Fruit Grower, for sale by

RUGGLES, NOURSE, MASON & CO.,

March 26, 1853. tf Over Quincy Market, Boston.

Valuable Potatoes for Sale.

THE subscriber offers the following valuable potatoes for sale. A particular description of some of them will be found in the last volume of Transactions of the N. Y. State Agricultural Society for 1851. This society awarded him a special premium at the State Fair at Utica, and also voted him $100 at their meeting at Albany during the present month, as encouragement in these experiments.

No. 1. *Rough Purple Chili*, imported in April, 1851, at a great expense. For yield, hardiness, and table quality it has no equal. Price $10,00 per bushel. This potato yielded me last year, ninety-two from one by measure; while to Mr. Delafield, of Geneva, it yielded one hundred and twelve from one by weight.

No. 2. *Seedlings originated in* 1849. They are hardy, productive and good for table use. Price $7,00 per barrel, or $3,00 per bushel. Many of these have been tested this year under the eye of the State Society, and yielded from twenty to sixty-four from one, by weight.

No. 3. *Seedlings of* 1852. These consist of many choice kinds selected from 4200 varieties, and consisting of eleven different families. They were selected with especial reference to hardiness, fine flesh, yield and mode of growth in the hill. They afford a basis for the entire renewal of the potato crop in our country. Price $10,00 per bushel.

No. 4. *Potato Seed from the seed-ball.* These seeds consists of two kinds,—that produced by No. 1, and the choice sort in No. 2, above,—and are the same that produced the seedlings of 1853,—No. 3, above. As they have thus been tested so they are warranted to produce a large proportion of hardy, productive and shapely tubers.

Price $1,00 per paper, the paper to contain more than 1000 seeds, to be sent to the purchaser by mail, post paid, and accompanied with directions for cultivation.

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☞ *All orders answered only for cash.*

REFERENCES:—

The officers of the N. Y. State Agricultural Society.
B. P. Johnson, Cor. Secr'y of do., Albany, N. Y.
Hon. I. Delafield, Geneva, N. Y.
I. P. Fogg, Agricultural Ware House, Rochester, N. Y.
Wm. Bristol & Co., Druggists, Utica, N. Y.
Charles Tracy, Esq., New York City.
C. L. Whiting, Granville, Ohio.

C. E. GOODRICH.

Utica, N. Y., March 1. 2m

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I will sell by auction, at my residence, on WEDNESDAY, 8th June next, at 1 o'clock P. M, about thirty thorough bred Short Horned Cattle. About twenty of them are Cows and Heifers, the remainder young Bulls. Nearly every animal are the produce of the Imported Bull "YORK SHIREMAN" and 3d "DUKE OF CAMBRIDGE," bred by the late Thomas Bates, Esq., of Kirkleavington, England, and "EARL OF SEAHAM" and "VAN TEMPEST," bred by John Stephenson, Esq., of Durham, England, and are of his famous Princes family.

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I will also offer the above named Imported Bull, "Van Tempest,"—his upset price is $1000.

TERMS—Cash, on satisfactory notes at three months, payable at the Bank of Auburn, with interest.

I will also have for sale at that time a few South Down Rams and Suffolk Pigs.

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Sanford Howard, Esq., Cultivator office, Boston.
Luther Tucker, Esq., and B. P. Johnson, Esq., Albany.
L. F. Allen, Esq., Black Rock.
M. B. Bateham, Esq., Columbus, Ohio.
W. T. Dennis, Esq., Richmond, Indiana, and with the subscriber.

J. M. SHERWOOD.

Auburn, N. Y., March 12, 1853. *2

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JAMES HYDE & SON.

N. B.—Orders should be sent as early as possible.

Newton Centre, Mass., Feb. 19, 1853. 5w*2

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NEW ENGLAND FARMER

Is published on the first of every month, by JOHN RAYNOLDS and JOEL NOURSE, at Quincy Hall, South Market St., Boston.

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Over Quincy Market.

Boston, March 26, 1853. tf

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March 26, 1853. tf Over Quincy Market, Boston.

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BLACK Sea Wheat,	Dutton Field Corn,
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Buckwheat,	Golden Field Corn,
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March 26, 1853. tf

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